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SAFETY NEWS



IN THIS ISSUE

Fifty Years of Powered Flight Lessons from Disables Fow the United Alders

"Ot sounded like an Explosion going off in my head"

said John W. Stark, Ironworker, employed at a large power plant construction project, by a subcontractor of Dravo Corporation



I. "The day it happened, I was brazing a plate to a copper wire beneath the turbine floor of the new power station.



2. "When I finished, I took off my goggles, turned my Skullgard around, and bent over to inspect the job.



3. "I just started getting up when something smashed into my Skullgard. It sounded like an explosion going off in my head.



4. "I was stunned by the blow, but the real shock came when I saw the steel chipping bar sticking in the Skullgard."



... Mr. Stark picked up the Skullgard that had toppled off, and with the bar still in it, walked to the Dravo dispensary on the job site. The nick in his scalp was treated, and as an extra precaution, Dravo took an X-ray of his head. He was back on the job in two hours.

There are good reasons why the M.S.A. Skullgard has what it takes to turn accidents into incidents. Steel wire screen reinforcing in the crown assures an extra margin of protection against "dead center" hits. High-strength, one-piece laminated plastic dissipates the force of the impact to safeguard the head, neck and spine of the wearer from the full force of the blow. Engineered head bands cushion the blow, permit non-slipping adjustment that means accurate fit. And M.S.A. Skullgards have the comfort-qualities that encourage full time hat use. Our bulletin gives complete details. Write for your copy.

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new Willson safety spectacles

combining eye protection with the color styling workers want today!

ь

Style WR-choice of new apatula temples as shown, or half-plastic, half-cable type temples. Style WBS-has matching bronzesideshields.

Not one, but two new features make these sturdy safety spectacles an exceptional value. Their distinctive bronze color gives them a pleasing appearance. And the new non-flammable frame is toughest plastic made for spectacles-won't chip, crack or craze-and has greatest shock resistance.

Willson Bronze styles feature the "keyhole" bridge and popular Hi-Line * temple. Brand-new wire core spatula temples add an extra comfort feature you'll welcome. They're easy to adjust for a perfect fit!

These attractive spectacles are available with Super-Tough' heat treated glass lenses or Willson Plas-Tough® plastic lenses. A full range of eye and bridge sizes make these spectacles ideal for use with prescription lenses. See your nearest Willson distributor for these new Willson Bronze styles—or write for descriptive bulletin.



For those who prefer flesh-colored plastic spectacles, with the same safety and comfort features and choice of temples, see Style WK and Style WKS.



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SAFETY NEWS

Published monthly by National Safety Council

THE COVER: A plant locker room is set up in the Chicago Studio of Dallas Jones Productions for the safety movie, "You Can Take It With You."

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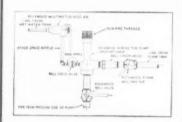
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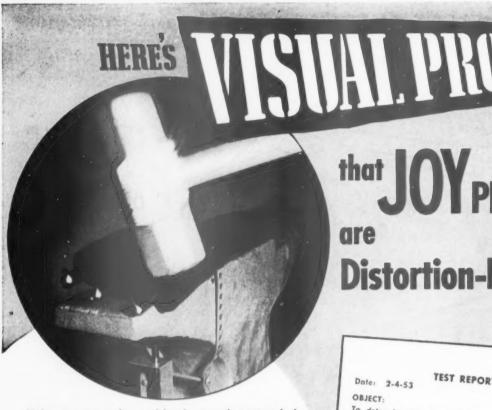
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Taken at one two-thousandths of a second, unretouched photo reproduced above shows a JOY 372M electrical connector absorbing the full impact of a heavily swung 10 lb. sledge hammer. Punished by twenty-four (24) similar blows while being so photographed the con-nector was then thoroughly tested for defects with results as reported at right.

When the problem is selecting electrical connectors for industrial applications and units in use baven't quite measured up to requirements, it's time to switch to JOY. Factory molded into one-piece Neoprene insulated units, JÓY connectors can't crack or be smashed out-of-shape when dropped - won't become mushy when smeared with grease or oil - and are absolutely moisture-tight. Cork-like action of their Water-Seal also prevents metallic dust from accumulating around contacts when they're connected. Why accept less when the best actually costs less in the long run?

> Ask for your free copy of this attractive two-color sixteen page Bulletin. Numbered MC108 it illustrates and describes many of the popular electrical plugs and receptacles JOY makes for Industry.

TEST REPORT

Date: 2-4-53

No. 387

To determine the effect of heavy blows on a 372M

PROCEDURE:

A 372M plug was selected at random from stock, placed on an anvil and struck 24 times with a 10 hb. sledge hammer. Impact force of each blow being approximately 40 foot pounds.

TEST DATA:

VISUAL INSPECTION: No distortion of original shape. Center pin slightly misaligned, however plug's ability to engage mating connectors unimpaired.

FLUOROSCOPE INSPECTION: Conductors intact and undamaged. No intermittent electrical opens in

ELECTRICAL TEST: 1500 volts AC RMS applied for 5 continuous minutes. Insulation between contacts did not break down.

COMMENTS:

JOY 372M plug relatively undamaged by blows described above. Should still render many years of satisfactory service under normal conditions.

> alfred g. Musee A. V. MUCCI Supervisor Inspection

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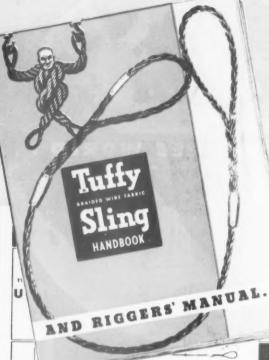
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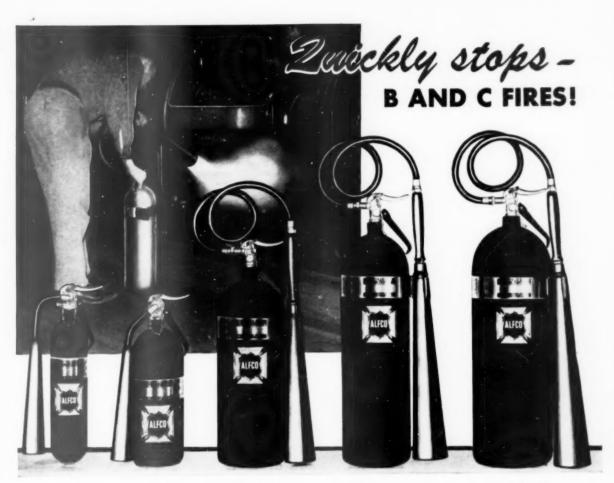
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Model No. 5

Model No. 10

Model No. 15 (Shown above in action) Model No. 20

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valve stem prevents gas seepage during operation . . . Operates faster . . . Squeeze-lever directly over valve stem gives quicker discharge . . . Straight discharge from valve for Models 10, 15 and 20 . . . Simplified swivel elbow on Models 2½ and 5 . . . Safety Disc side mounted instead of on top for added protection . . . Double prong locking pin prevents accidental discharge . . .

In charging these new units, no discs are required. Simply squeeze open the valve, permitting the recharge to enter the cylinder. Handsomely finished in red enamel. Discharge hose and horn in black. Hanging bracket and screws furnished. Vehicle mounting bracket available, also one for boats, barges, trucks, etc.

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NATIONAL SAFETY NEWS

JUNE 1953

The Public Service Work of the National Safety Council

What it is.... Why it is important.... What it is accomplishing.... Why it should be supported

DURING the few months I have been chairman of the National Safety Council's Trustees, one fact has become increasingly evident to me: the average person, and particularly the average business executive, has hardly any conception of what the public service. or Green Cross, part of the Council's work is and of the importance of this work to the social and economic life of the nation.

When one considers that this public service work is comparable in importance to any of the great fights being waged against disease, it is clear that not only the Council, but also the public, the country's business and industrial interests, and our general social and economic progress suffer from such a lack of understanding. It hampers safety progress in the same way that an uninformed and indifferent public attitude would hamper progress in public health.

Obviously, therefore, it is basically important, to bring about a better understanding of that part of the Council's work which falls into the public service category. For, after all, if life in this country is to be made appreciably safer for everyone, it will be this public service work which will be mainly responsible. The statement which



By W. S. S. RODGERS
Chairman of the Trustees of the National
Safety Council and former Chairman of
The Texas Company.

follows tells what the public service work is, why it is important, what it is accomplishing, and how it is supported.

The Public Service Work (sometimes known as the Green Cross Program) is that part of the National Safety Council's work which is concerned with non-occupational safety and which does not produce income. In general, the work carried on in the fields of traffic, home, school and farm safety and in public education falls into the public service category. It is this work, as dis-

tinguished from the Council's membership services, for which voluntary contributions are sought. The difference between this work and the membership services boils down to this:

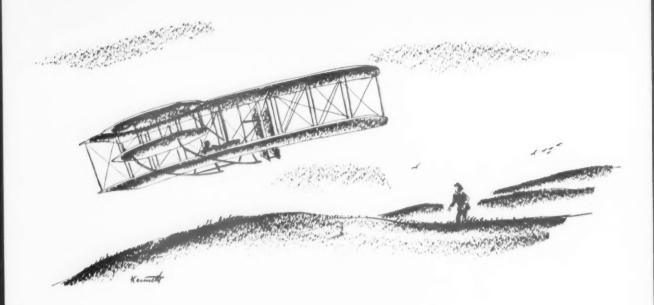
 The membership services are concerned with the on-the-job safety of workers and are purchased by member companies for their own private use and on a value-received basis. These services are entirely self-supporting.

2. The public service work is concerned with promoting the practice of safety in non-occupational activities, is carried on for the general public welfare, and is not self-supporting. One of the major parts of this work is the service given state and local safety councils throughout the country. This service includes direct personal assistance to 84 affiliated councils and 151 other member safety organizations on planning, administrative, programming, and other problems, as well as direct assistance to communities in organizing new local councils.

The Council had been carrying on its membership services for nearly thirty years before the public service program was instituted in 1942. If its work were still confined to these membership services, its operations would be completely self-supporting and it would have no need of contributions.

As to the social and economic

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4EUEL OF POWERED

By L. D. WEBB

OUR nation celebrates the 50th anniversary of powered flight this year. Everyone over fifty years of age was living before the first flight of the first airplane.

There has been much progress since that day the Wright Brothers first lifted their fragile craft of spruce and linen from the sands of Kitty Hawk, to land twelve seconds later on those same sands at a higher elevation, 120 feet from point of take-off. This was the first flight of a power-driven airplane. Three more flights were made that day and on the fourth flight, the machine stayed up one minute and covered a distance of 852 feet.

Today's machines, some flying faster than speed of sound, are a far cry from that crude craft which flew one-sixth of a mile. Today's modern transport plane is dependent upon more people before regular flight than were involved in the entire manufacture and pre-flight work on the Wright Brothers airplane. The pilot who captains today's transport is dependent upon the training, alertness and integrity of all of these people and passengers in turn are dependent upon competence of the flight crew to assure safe arrival at their destination.

Luxury, comfort and safety of the plane itself is dependent upon thousands of hours of work by designers, engineers and production people. Complexity of today's aircraft with their ability to cross not only continental areas, but

L. D. Webb is Vice-president, Aircraft Industries Association. This article has been condensed from an address before a meeting of the Greater Los Angeles Chapter of the National Safety Council at which the aircraft industry was honored for its safety achievements.

broad oceans in international air travel requires combined efforts of many more.

Some measure of this effort is shown when we realize that if any one man had the ability, he could not complete the design work of a modern aircraft in his own lifetime.

The aircraft of tomorrow promise an even greater complexity. The industry today is on a new threshold where the solution of each specific problem generates a host of new problems in unknown fields. It has been predicted by one of the prominent aircraft builders that within the next forty vears thousands of passengers a vear will hurtle across the sea in jets. Guided missiles will follow a curve in space outside the earth's atmosphere, and it is not too fantastic to predict that space-ships will one day sail gaily to the moon or other planets.

Remember the old maxim:
"That which man may visualize
—that he can accomplish."

At the time of the Wright Brother's first flight, few people be-

lieved that the airplane would ever be anything but a novelty. Only the craziest visionaries dreamed there would ever be an aircraft industry. Today aircraft manufacturing is the nation's second largest manufacturing industry. Nationally, it employs about 750,000. It is the largest manufacturing industry in the West. Locally, it employs about 176,000 people of whom 21 per cent are women. The local payroll averages about 15 million dollars per week.

Products of American aircraft plants are known throughout the world. This has not just happened; it has been a long struggle on the part of many with vision and the tenacity that characterizes those who are leading the industry today. Many of today's leaders are the pioneers who heard the baby industry's first cry and have seen it grow out of knee-pants. Growth has been rapid and problems faced by each builder have been in large measure concurrent.

Several of our large companies are headed by men who once worked with each other in the

earlier stages of development. This has encouraged a degree of teamwork that has been enjoyed by no other industry. Without jeopardizing their competitive positions, this teamwork has led to exchange of information which greatly advanced development and increased safety. Practically all problems related to the industry were new problems. There was no old-timer who could jealously guard a panacea for the many ills encountered in aviation's growth. This willingness to exchange experiences, sensations, and developments first made itself felt when the industry was young. As companies grew larger, and in part under the pressure of defending our nation, this industry accelerated its production by continuing to exchange knowledge.

For many years the industry was geared to capabilities of power-plants available. More recently the trend is changing and the industry is finding itself pressed to develop airframes which will take full advantage of power

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FLIGHT

Lessons from Disasters

By REAR ADMIRAL LOUIS B. OLSON USCG

In disaster, chance seems the outstanding element. But there are commonplace contributing factors, too. Eliminating them would save many lives

THE COAST GUARD'S responsibility for the prevention of marine accidents and disasters and its jurisdiction cover almost everything that floats on the navigable waters of the United States. Specific responsibility varies considerably with size, type and scope of operation of the craft concerned. but it covers the enforcement of all Federal laws and regulations on these waters either in toto or as collateral responsibility with other agencies, including such matters as oil pollution, control of anchorages, movement of certain types of vessels, port security, licensing of personnel, inspection of machinery and hulls, and investigation of casualties. There is the allimportant search and rescue by cutter, small craft and plane. The Coast Guard provides an efficient means of coordinating these diverse activities, most of them quite directly concerned with the same objective: prevention of accidents and disasters at sea.

An accident is an unexpected incident with unfortunate results, and occurring without deliberate intent on any person's part. In the train of circumstances leading to the incident, there may enter, to varying degrees in each case, factors of human frailty, lack of foresight, poor judgment, carelessness, or actual negligence.

A disaster is a terrible accident, one which results in great public loss, usually involving serious loss of life and damage to property.

In the search for principles which may be valuable in marine accidents and disasters, it may be worth while to consider briefly the entire field.

Each new disaster, in spite of obvious similarities to some previous ones, has certain new features; there are factual narratives, sensationalized eye-witness accounts, sob-sister stories, statements of officials, investigations and so on, ad infinitum. The story eventually accepted as a true narrative for historical purposes probably is a reasonably accurate account of the actual event.

In many cases there still remains doubt of accuracy as to details. Vital witnesses may not survive, those who do may color

R/Aom, Otson is Commander, Third Coast Guard District. This article has been condensed from a paper presented at the 23rd Annual Safety Convention of the Greater New York Safety Council.

the final picture as a result of faulty observation and recollection of a fast-moving chain of events. This faulty observation may result from lack of previous experience with matters observed, unconscious prejudice or desire to prove a preconceived view, restricted opportunity to see anything except a limited part of the entire scene, influence of statements of others, mob reaction, and many others.

The first flashy, sensational news is apt to be grossly inaccurate; later accounts are apt to be much better, but even then there will be considerable variance between accounts, depending on the objectivity and good judgment the author shows in screening material and the slant he places upon it in the final write-up.

This is the raw material on which constructive action for better prevention must depend. It frequently results in new legislation, new regulations and new enforcement machinery, All accidents of that kind should end forthwith, but perversity of human nature is such that similar disasters are only decreased in number and usually not entirely eliminated.

A disaster usually has many unique features. Because of the attention it draws, it frequently forces action which would not be possible otherwise.

An unusual or spectacular accident can be used to eliminate the hazardous condition covering it. Accidents of common, frequent types resulting in a staggering total of fatalities are frequently accepted without any self-generated public pressure for correction. The public reacts with relatively little interest to 30,000 automobile-caused fatalities a year, but is much more aroused by a single airplane accident with loss of 35 to 40 lives.

By repetition, a number of minor accidents becomes a disaster, but is not so recognized. Many an accident is a potential disaster, needing only presence of people or valuable property to become one. A fire or explosion may be an accident in an isolated area; it becomes a disaster if it is in an area of concentration of people or valuable property. One of the factors contributing to a disaster is the concentration of personnel and property in a limited space.

For worth-while progress in prevention, study should be made of all available material, both as to accidents and disasters, with a realistic evaluation of practical corrective measures, with careful consideration of the economic aspects of such measures and avoiding, as far as practicable, unsound actions resulting from sensational aspects of particular incidents. The closing of the Newark Airport was forced; the re-opening was just as much indicated.

Accepted Risks

Corrective action is seldom taken because of intelligent analysis before an attention-attracting accident indicates its need. A spectacular accident or disaster results in an investigation and gropingly and hesitatingly recommendations are made. Many are impractical, and are justifiably opposed; some are practical but expensive or burdensome or new, and are opposed unjustifiably. As a result, laws are passed, regulations are issued, inspections are made and presumably this type of accident is eliminated forever. But it is not so; the human element proceeds to prevent that ideal

In analyzing factors responsible for accidents or disasters, we find

Netherlands Men at NSC



REPRESENTATIVES from the Netherlands under the Mutual Security Act program visit National Safety Council headquarters in connection with the Building Construction Safety Familiarization. Howard Warzyn senior engineer in the Council's Industrial Department and staff representative of the Construction Section, demonstrates a Safetygraph on the use of ladders.

Left to right in the above photograph: H. L. DeJong, H. J. Cramer, F. E. Röntgen, W. G. Lamers, J. C. Van Teijlingen, J. N. Trenité.

a large element of chance in most cases. Sometimes it is difficult to evaluate how much influence factors have: in other words, the area in which preventive measures can be effective. For instance, we flout experience when we rebuild in an area where earthquake or flood has created havoc. The rebuilding insures that the area will be occupied when and if the same destroyer strikes again. Time and chance will determine the particular individuals destroyed, but if fate strikes again at any time another disaster results because the place has been re-occupied, and probably will continue to be occupied until disaster strikes again.

But these risks are accepted as part of the risks which go into every activity of life. In 1755 Lisbon had a very severe earthquake with loss of thousands of lives. In the same year Boston had a very severe earthquake. In 1811 in Missouri, with a center at New Madrid, there was an earthquake which is believed to have been the most severe to have occurred on the American continent since the

arrival of the white man. In 1886. in Charleston, there was an earthquake which resulted in the loss of 27 lives directly attributed to the earthquake and 83 more indirectly as a result of injury or exposure, with damage of \$5,000,000. Since the time of those earthquakes at Boston and New Madrid, the population and concentration of buildings and other structures has been such that a repetition would, undoubtedly, result in serious loss of life. Yet it is doubtful if earthquake hazard is a material consideration in many decisions made in those communities today.

However, it is important to evaluate these risks and take steps to eliminate as many as possible, or at least to diminish their effect. It is in this area that the investigation of accidents and disasters is important; first, in determining the contributing factors outside of the element of chance and determining what measures may be taken to eliminate these factors in the future, or at least to diminish their effect.

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Figure 1. Scientists and technicians in the Westinghouse Atomic Power Division's Hot Laboratory test and observe radioactive materials by remote control from behind three to five feet of concrete and lead walls. Layers of thick plate glass, separated by oil, protect them from the deadly radiation emitted by "hot" materials in cells on the other side of the wall. Periscopes and telescopes are used to view radioactive objects.

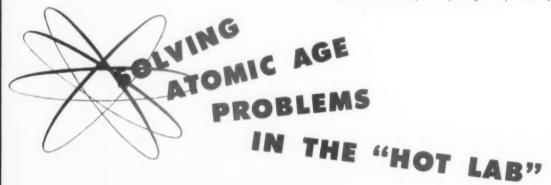


Figure 2. Using remote control equipment, Engineer R. H. Fillnow operates a milling machine to cut end off a container holding radioactive material to be tested. Once end of specimen container is removed, untouchable objects are dropped into a tray, picked up by another but smaller manipulator and carried to another cell for testing physical and mechanical properties. Periscope at left has motorized head and can view entire cell. Window is 36 inches thick and is made of layers of plate glass separated by oil.

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N UCLEAR scientists, who work daily with radioactive materials too "hot" to handle, have been able to solve many of their problems by using one of the most unique "tools" of the Atomic Age —the "Hot Laboratory."

One such group of scientists is at work in the Bettis Plant, Pittsburgh, Pa., of the Atomic Energy Commission. This plant is operated by the Westinghouse Atomic Power Division, which is engaged in two of the nation's atomic projects—construction of the atomic power plant for submarine U. S. S. Nautilus, and development of an-

other nuclear reactor for a large vessel, such as an aircraft carrier. Both projects are being conducted for the U. S. Navy and the Atomic Energy Commission.

A major problem in the construction of nuclear reactors is that of handling radioactive materials during tests and laboratory analyses. For safety purposes, this testing is done almost completely by remote control in a building known as the "hot lab."

There are five "hot spots," or cells, in the Westinghouse "hot lab" and these are separated from the main working area by a thick concrete and lead wall. In the cells themselves—each separated from the other by a thick steel wall—are testing devices designed especially for the lab's operations.

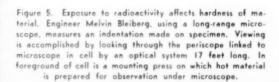
The inside of each cell is viewed through a 36-inch-thick window comprised of layers of plate glass separated by oil. Mechanical, claw-like "hands" — controlled from outside the cell—move radioactive objects into position for testing. A periscope-telescope arrangement enables scientists to examine specimens through a remotely controlled microscope.

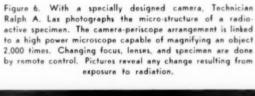


Figure 3. Device behind thick glass-oil window is called a "Gram-atic Balance." It is operated by remote control. Balance is so sensitive it can weigh amount of lead used to write a word, or 11-millionths of a pound. Here Technician W. C. Hickman is weighing a specimen which has been subjected to radiation to find out how much change in weight has taken place.



Figure 4. To find out how much impact material will stand after exposure to radiation, a specimen is struck with a hammer-like instrument. Technician Michael W. S. Sudsina gets set to release the hammer. Small manipulator claws are standing nearby ready to pick up the specimen and carry it to another device where it will be examined for impact strength.









National Safety News, June, 1953



Charging aluminum manually into a single-hearth melting furnace.

We've Learned to Handle

Molten Aluminum

By T. L. FRITZLEN

PRIMARY aluminum handled in molten form has increased from 164 million pounds in 1927 to 2 billion pounds forecast in 1952. Secondary metal, melted from scrap, has increased from 92 million to over 500 million pounds in the last 25 years.

The principal purpose of a cast house is to cast aluminum alloy ingots of suitable chemical composition and quality with minimum cost. Equipment used and nature of operations determine to a large extent the type of hazards present, but safety precautions help to keep costly injuries to a minimum. An aluminum cast house can be a safe place to work,

Primary aluminum is usually handled twice in molten condition. The first handling, after reduction from the oxide, is where it is siphoned from the electrolytic cell into ladles from which it is poured into rectangular blocks called pigs.

The second handling in molten condition is when aluminum pig is melted, alloyed and cast into round, square or rectangular ingot for further working by rolling, extruding or forging.

Aluminum pig from reduction plants, purchased or generated, scrap, and alloying elements are charged into open-hearth furnaces for melting and alloying.

Melting furnaces are fired with coal, coke, oil or gas. Metal is heated by convection of resultant hot gases over its surface and by radiation from hot refractory roof and walls of the furnace. Capacities of open-hearth furnaces for melting aluminum range up to 100,000 pounds. Furnaces have

T. L. FRITZLEN is Chief Metallurgist, Reynolds Metal Company, Richmond, Va. His article, written in collaboration with R. S. Mapes, J. E. Nichols and L. E. Dube of Reynolds Metal Company and W. E. Bowen, R. B. Weamer and T. E. Webb of Reynolds Alloy Company is presented in condensed form.

either one large hearth, or have two hearths, a larger one for melting with a smaller hearth for holding molten metal for casting.

Heavy material is ordinarily machine charged. Lighter material is usually charged by hand. Very light scrap, such as machinings, is usually blown into the melting furnace.

An explosion can result from charging wet pig, scrap or ingot into the molten metal bath. Water immersed in molten aluminum at 1300 degrees F. expands in volume over 4000 times in conversion to steam. A teaspoonful of water heated to 1300 degrees F. expands to a volume greater than 5 gallons. The sudden increase in volume, when water is entrapped in molten aluminum, causes violent explosions. Water entrapped in molten aluminum in the cast house can be as disastrous as mixing whiskey with gasoline in the automobile.

A double-hearth melting furnace



Pig storage yard. Since aluminum is not damaged by exposure to weather, it is not necessary to store it under cover. When wire strapped, an entire stack is easily moved by fork lift truck and shipped as a unit.

was recently wrecked by charging wet aluminum scrap into the molten aluminum alloy bath. The scrap was stored outside during the winter and ice mixed in with smaller pieces of scrap was not observed. This also caused serious injury to one man.

While on an inspection tour through an aluminum cast house I received leg and foot burns from a box of scrap aluminum that was being machine-charged into a melting furnace. The scrap was apparently wet, for molten metal was thrown out of the furnace charging door about 60 feet over the top of the charging machine. Leg burns were first and second degree as trousers extracted some of the heat. The foot burn was third degree as I was wearing a sock too light to absorb much of the heat given up by the solidifying metal.

Aluminum at its melting point gives up 37 per cent of its heat content in changing from a liquid to a solid. This emphasizes the advantage of wearing protective clothing when working with molten aluminum.

When charging relatively heavy scrap into the molten bath there is a chance of splashing. A large portion of burn injuries are caused by molten metal splashing. These splashes are caused by dropping solid metal into the molten bath

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An important source of aluminum for fabricating is from scrap melting and refining furnaces. Here molten aluminum runs into molds, while men in the foreground remove the ingots after the metal has cooled and solidified.



Meet ACF's "Dean of Safety"

By J. W. RICE

In peace and war, Earl Sang's career reads like half a century of "safety last." But the lessons he learned from experience are preventing injuries at Huntington

THE EVENING of July 19, 1930

was warm and humid in
Huntington, West Virginia. It was
late Saturday night—the night
special police officers patrolled the
streets to maintain peace and order. It was a perfect evening for
a liquor raid.

Sliding up to the back door of

a little brown house off Richmond Street, the patrolman squinted through the blackness of the kitchen to see a young woman frantically dumping a five gallon crock of whiskey on the floor. He made a grab for the crock as the woman lunged for his gun. A pistol shot rang out from the dining room and the patrolman's left arm went limp. Before he could free his pistol from the woman's desperate grasp, a crouched figure in the dining room had fired five

bullets into his body. A sixth creased his thumb a minute later.

Wheeling in a frenzy of excitement, he poured four shots into the unknown bootlegger firing from the dining room. He heard a man's voice in the darkness let loose with a vicious curse; he saw the man hit the floor with a fifth and final bullet and roll over, dead, as the screaming woman fled.

Dragging himself to his squad car as he clutched his open innards with both hands, the dazed officer was whisked to St. Mary's hospital with blood pouring from six gaping wounds. As he lay on a table outside the operating room, being annointed by a priest, he heard the doctor say, "There isn't one chance in a million that he'll live." Raising himself on his elbows, in a state of semi-shock he gasped, "You do your part, doc, and I'll do mine. I ain't gonna die, dammit."

Dr. John H. Steenbergen, well known local surgeon, shook his head as the anesthetic was administered. Two bullets had passed through the dying officer's liver. The doctor remembered that only one man in medical history, a Captain in the French Foreign Legion, had survived a bullet wound in the liver up to this time. The officer's wife, who had hurriedly parked their three children with a neighbor, rushed hopefully into the operating room just as Dr. Steenbergen and his two assistants started surgery.

Four hours, several transfusions, and dozens of stitches later the officer was patched up. But he had one chance in ten of making it. As his tearful wife, Lydia, prayed over his unconscious form, she was convinced that he was going to pull through. After all, he'd been shot between the eyes with a .22 caliber rifle when he was playing cowboys and Indians at the age of seven. His whole skull was laid open when a horse kicked him at the age of six. He'd been wounded three times during World War I. and was gassed twice in combat. He loved life too much to die,

All Huntington buzzed with the

This article has been condensed slightly from one which appeared in Rolling Stock, the employee publication of American Car and Foundry Company.

excitement of his fighting recovery. For three days the *Huntington Advertiser* carried front page headlines of his progress; he soon had a fifty-fifty chance of survival. Down at the ACF Huntington shops, where he was plant safety inspector, co-workers knew he'd make it. "That doggone buzzard," said district manager John W. Ensign, "has more lives than a cat." That doggone buzzard was Earl Sang.

Today, a pretty healthy 56, Earl Sang is still tough and determined, and he loves life more than ever. In fact, he has devoted his own life to saving others. That's why his classification card reads: "Safety Supervisor."

But Earl is not just a safety supervisor. Throughout the company he's known as "The Dean of Safety." Before he came to be the Dean, though, he learned about safety the hard way in one of the most colorful careers any man could have.

The fantastic shooting that fateful night in 1930 made a total of eleven bullets that Earl Sang's body has absorbed in stride. However, the real climax came a week after the operation when Earl developed a coughing fit and ripped open all his stomach stitches until his liver lay bare.

Every doctor in St. Mary's hospital wanted to sew him up again immediately; Earl wouldn't let anyone touch him but Dr. Steenbergen, who was visiting in Kentucky at the time. Nine hours later the doctor was reached and he raced back to the hospital in time to sponge off the ruptured liver before sewing Earl up again. The doctor later learned through sim-



At Fort Strong, Boston, in 1917 Earl was a recruit in the infantry on his way to Officers' Training. (Below) Returning in 1919 a first lieutenant, he went back to work immediately for ACF at Huntington.

The Sang family posed for this photo. Tommy Lee, Jimmy Dale and Connie Sue Thornburg, grandchildren, sit on the floor in front of Lydia M. Sang and the "Dean of Safety." In the back row are Bob, his wife, Marlene, Phiney, and Carl Thornburg, a son-in-law. Earl's two daughters, Mary Alice and Catherine Ann and grandsons Johnny and Robert Sang were in bed with the flu when the picture was taken.





ilar cases, that the patient would never have survived if the liver had not been cleaned.

That was a lucky break indeed, but an even luckier one took place during the shooting. The first bullet that hit Earl struck a full package of cigarettes in a pocket over his heart and was deflected into his left arm. Typical of Earl's sense of humor, he wrote Liggett and Myers to tell them "Chesterfields satisfy in more ways than —To page 149



Squiggler Corp. Wins Award!

The long and complicated story of events leading up to the granting of an imaginary award to a fictitious company

By NORMAN MOZLEY

HARD-HITTING, easy-going Bill McDill, Safety Director for Truncated Squiggler Corporation, waxed eloquent on his dictaphone:

"We have done a bang-up job in safety here at Truncated Squiggler this year, and management is giving a banquet to commemorate the first time in the history of the company that we have gone a whole month without a disabling injury. We went all last year without a fatality, as compared with one to three fatalities in every previous year, and we have gone over five years, 1308 working days, since the last double amputation.

"Now, we are getting a certificate from our local Booster Club, and management feels that it would be nice to have an award from the National Safety Council to present at this dinner. Please let us know what we have to do to get it."

A few days later, Bill McDill received a reply. With it were some Summary of Industrial Injuries forms and a copy of the Industrial Award Plan. Dismayed by the thought of reading this material, he tossed it to his assistant, Horace Morris, an eager young college boy who didn't know

nuthin' about safety—nuthin'.
"See if you can make out what they want," he said.

After lunch, Bill McDill's 'phone rang. "McDill? . . . Good! This is P. D. What have you done about getting that safety award?"

"I wrote the Council and they sent us a bunch of papers," the safety man replied.

"Papers, hell!" roared the eventempered executive. "I've already told the reporters we're getting an award from the National Safety Council. Starting right now, your job is to get one, or else . . . Click!" And Bill McDill was left holding a dead telephone. He put the telephone in its cradle and picked up his dictaphone.

"I am getting tired," he dictated, "of doing a lot of senseless paper work for the National Safety Council. I told you we have had an outstanding year, and I want

Editor's Note: Even statisticians have their lighter moments and anybody who has to work with figures (the inanimate kind) day after day needs an opportunity to blow off steam. Norman, who is a member of the Council's Statistical Division, says he wrote this piece for two reasons: to tell of the humorous angles of his work, and to clear up some of the misunderstood points about the operation of the award plan. He insists that Bill McDill is an imaginary character, devised for purely pedagogical reasons, and that similarity of safety man to Bill McDill would be coincidental, unusual and lamentable.

an award for it. We are willing to pay for it, if necessary, but send it without further delay. We have to have it by Friday the 18th. ten days from today. The plans for the banquet are all set, and I don't think the National Safety Council is doing its part when you make us wait like this. An award at this time will be a big boost to our employees' morale and will help the cause of safety immeasureably, and if we can't get an award for what we've done, then awards ought to be made easier to get. What does a plant have to do to get an award, shut down completely so it won't have any accidents? Cordially yours, Bill McDill."

"There, by gosh, that'll burn 'em up," he scowled.

After the letter was typed and in the mail, he sat and re-read the carbon copy a couple of times. His pleasant reflections on how it would make the Safety Council staff squirm were interrupted by his young assistant, Horace Morris, who entered his office and said, "Mr. McDill, I've studied this award plan like you asked."

"Read this, kid," said Bill McDill, indicating the carbon of the red-hot letter he had sent the Council.

Horace Morris read. "Well, Mr. McDill, we can get an award, according to this plan. After I finished reading it, I got out our annual reports for the last four years and my copy of Accident Facts, and my figures show that our frequency last year was 54 per cent below par, and our severity was 93 per cent below on account of not having any fatalities."

"So what?" said McDill, "I know we had a good year."

"So that qualifies us for the Award of Honor."

"Well!" said Bill McDill, "It's about time they did something for us. This Award of Honor—is it the best award?"

"Yes, Mr. McDill."

"Well!" said Bill McDill.
"That's more like it. Why didn't
they offer us this award a long
time ago?"

Strictly for the Birds!

A BULLET went singing through the rim of Charlie's fatigue hat, out through the roof of the tent. Everybody in the tent made a quick change of underclothing, and then proceeded to find out who the stupid so and so was who was so free with the lead.

There he was, sitting in front of the tent across the street, with an imbecilic grin on his face, quickly stuttering as we advanced in his direction, "Er uh, I was just cleaning this here '45' automatic here, er uh, I didn't think it was loaded."

The big decision then was, whether to pound bumps all over his frame, so he'd make damn sure next time, or to have a quick thankful session with the chaplain.

You don't have to go to war to find this type of dunderhead, however. We have private little wars going on like this every day in every plant and village.

The guy who burns the whole plant down by smoking in a "no smoking" area, then says, "I didn't think those fumes could travel all the way over here (10 feet).

The guy who blows chips halfway across the shop into a fellow worker's eye and says, "I didn't think they'd hit anybody."

The maintenance guy who lights up his torch and welds away and says, "I didn't think the flash and sparks would bother anybody."

The guy who backs into the kid on the bicycle and puts him in the hospital, and explains, "I didn't think there was anybody back there. I looked before I got into the car."

The guy who draws back a stub from the punch press, and the foreman explains, "I didn't think he needed a guard on the press. It was only a short run."

The guy who gets a slug in the eyeball, and the foreman explains, "I didn't think he had to wear goggles on that job. That's the first time that happened in 20 years."

The guy with about 15 vertebrae playing footsy in a knot in his back, and the foreman explaining, "I didn't think we had to tell him how to lift. After all, he's 6 foot 2 inches tall and weighs 230 pounds."

"I didn't think" is about the weakest and the most common excuse used these days. What the hell are these foremen getting paid for? Having strong backs and weak minds?

Whenever a guy comes up with that one it's "strictly for the birds!"

> Robert D. Gidel, Senior Engineer, Industrial Department, National Safety Council

"But Mr. McDill . . ." began Horace Morris.

"Later, kid, later: I've got to write the Council another letter.

"Gentlemen: Thank you for finding us eligible for the Award of Honor. It took a long time, but you finally worked up a plan that somebody can win on. What's holding up the award? You have our contest reports proving that we had a good year. Please send the award by return mail. We should have got it right after New Year's. Cordially yours, Bill McDill."

Next he 'phoned the Head Man.

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Face shield of cloth coated with aluminum foil used by worker stamping hot steel. Safety type heat-resistant glass permits vision.

IN HIGH temperature industries like steel and glass manufacture, and foundries making large castings, the need for protecting the employee from radiant heat has become rather widely recognized. 1,2,3 Protection against radiant heat is also important at enameling operations in sanitary ware manufacture, in boiler houses, around rotary kilns as well as in permanent-mold foundries.

According to the Stefan-Boltzman Law, total radiant heat flux from a body surface is proportional to the fourth power of the

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Protection Against Radiant Heat

By A. M. WALLACH

	1	ABLE I		
Relationship	of	Fahrenheit	and	Absolute
T		(D) .	. 0	

1.01	operature (nan	Kine) Sca	iles
°F	°R (absolute) R	4
93	553	9.36	\times 10 ¹⁰
500	960	85.0	× 1010
650	1110	152.0	× 1010
750	1210	216.0	× 1010

absolute temperature of the surface. Now let us call the surface temperature (absolute) of a cooler body T_c , and the surface temperature (absolute) of a hot body T_b . Then the net amount of heat transmitted by radiation from the hotter to the cooler body is proproportional to $(T_b{}^4 \cdot T_c{}^4)$.

For example, if a person whose body surface temperature is 93° F (553° Absolute) is exposed to a surface of 650° F (or 1110° Absolute), he would absorb about twice as much heat by radiation in comparison with exposure to a surface at 500° F (960° Abs.) Thus an increase in absolute surface temperature of only 16 per cent produces a 100 per cent increase in heat exposure by radiation. If the exposure was to a surface of 750° F (1210° Abs.), a person would absorb almost three times as much heat by radiation with an increase of only 250° F in surface temperature (see Table I).

* Radiant heat is heat emitted through space from one body surface to another by electro-magnetic waves of very long, infra-red wave lengths, the intensity and wave lengths being dependent upon the nature and temperatures of the surfaces involved. For the temperatures involved the skin has an emissivity close to 1.0,4 and we have assumed a similar coefficient of emissivity for the hot sources.

These simple illustrations impress one with the value of reducing surface radiant temperatures.

Where possible, installation of reflective shields (usually of aluminum) between the source of radiant heat and the worker is most desirable. However, because of operations it is sometimes impossible for the worker to stay behind a permanently fixed reflective shield. Under such circumstances, reflective clothing fabricated from aluminum coated cloth (which is available commercially) is very useful. There is particular need

^{*} Emissivity is a measure of absorption (and/or radiation) of radiant heat by a body, as compared to a "black body." A "black body" absorbs all radiation which strikes it, reflecting none. It also is an excellent radiator of heat waves emanating from its body surface, and has an emissivity of 1.0. A "perfect reflector" of radiant heat absorbs none, and emits none even though its surface temperature is high. Highly polished silver, aluminum approach "perfect reflectors" and have an emissivity close to zero.

for protection of the head, which is considered one of the most sensitive regions of the human body affected by heat.5 In addition, subjective sensitivity to infra-red ray exposure (feeling of heat) is reached, when even relatively small areas of the body are exposed to heat. Therefore, even if a person were fully protected against infra-red rays except for his face, his radiation sensitivity (discomfort) would be about the same as if he were completely exposed.6 (This does not mean the total heat load on the person would be the same.)

Apparatus and Experimental Procedures

As we were concerned with reducing radiant heat exposure to the head, a protective face shield of aluminum foil appeared most desirable.

Since vision was necessary, an opening large enough to see safely was made in the aluminum foil sheet. This permitted the infrared rays to hit the eyes, nose and bridge area causing great discomfort. To reduce this discomfort about the eyes and reduce possible hazard from cataract, tests were made employing several types of glass for use in the shield opening.

A calibrated radiation thermopile* was used to measure the mean radiant temperature caused by the various hot sources (some of which were as high as 2400° F) to which workers were exposed. The mean radiant temperature of a worker's environment is that uniform temperature which his visible surroundings would be (assuming them to be black body surfaces with an emissivity of 1.0) in order to cause equal radiant heat exposures.

Then ordinary plate glass (1/4 inch thick) and two special type

TABLE II

Comparison of Effectiveness of Ordinary Plate Glass and Two Special Types Commercial Glass in Reducing Infra-red Ray Exposure

Equivalent surface temperature (mean radiant temperature) viewed by thermopile, assuming 100 per cent emissivity (°F)

Run	Exposure Time** (Minutes)	No Glass Interposed	14" Heat Retarding Glass Interposed	3/16" Heat Reflecting Glass Interposed	¼" Plain Glass Interposed	3/8" Plain Glass Interposed
1*	3-4	340	162		220	200
	3-4	440	215		300	268
	3-4	555	246		314	312
	2	690	250	285		
28	1	570	150	160		
	5	570	156	160		
3*	1	240	ambient temp.	ambient temp		
	1	325	90	90		
	1	460	105	105		
	1	680	120	120		
	5	575	135	110		
	5	660	138	132		

* In Run No. 1, some surfaces were as hot as 2400° F

In Run No. 2, some surfaces were as hot as 1300-1400° F

In Run No. 3, no surfaces were hotter than 900° F

- no readings taken

** Time during which glass was kept interposed between the heat sources and the thermopile. In all cases, equilibrium was reached between heat absorbed by and liberated from the glass within no more than 5 minutes.

TABLE III EFFECTIVENESS OF FACE SHIELD Mean Radiant Temperature Exposure to Eves

(assuming 100 per cent emissivity) "F

Operation	With no Protection	Single Brass Mesh-30/in.	Aluminum Face Shield with ¼" Or- dinary Glass	1/4" Heat Re-
Rod Mill Finisher (gauges) Exposed to Cherry Red Coils	> 1000° F	585°	220-260	160-200
Seamless Tube Mill Reheating Furnace (Inside of Furnace at White Red—2200°F)	> 1000° F	485-530	380-400	240
Push out Operator at No. 2 Round Mill Fce	650-685	260-300	210-220	130
Welder and Turn Down Operator at Welded Tube Furnace (Inside Temperature 2700°F)	650-685	425-450	310-320	210-220
Billet Mill, Hot Bed Stamping	800-900	400-450	150-160	125-130

Permitted standing exposed for 5-8 minutes to get glass into equilibrium with radiant heat sources and surroundings.

^{*} A radiation thermopile is an instrument composed of many thermocouples in series within a highly polished reflector. It is used in conjunction with a potentiometer to measure radiant energy emanating from hot surfaces.

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Joe and the Drunk

(Fiction)

By BILL ANDREWS

Friday, May 1, 1953

SOMETIMES I feel awfully old. It's one thing to see kids growing up around you. But it's even more startling to realize that you've lived long enough on one job to see radical transformations in the lives of adults.

So it was a jolt to sit there and listen to Joe Kawalski this morning, presenting the perfect picture of the supervisor outraged by bad behavior on the part of a subordinate—and to remember that only five and a half years ago it was Joe who was the crazy, maladjusted, damn-vour-eves rebel.

"Look," Joe was saving, "I can stand a lot. I'll give a guy a break. But I can't run the warehouse with a bunch of (censored) drunks."

"A bunch?" I asked. "I thought there was just the one."

"Well, I'll have a bunch of 'em, if I let this guy get away with it. He wasn't reeling, understand, wasn't falling on his face. But he came back from lunch vesterday with an edge on, just enough to make him cocky. And smellin' of the stuff to high heaven. He was a menace, to himself, to other guys. A drunk fork lift operator's worse than a drunk driver on the highway. I sent him home, an' I don't want the so-and-so back."

"Why come to me?" I asked.

"That's a problem for personnel."

"I want your backing. Look. I've been foreman at the warehouse annex less than 30 days. There may be a beef from the grievance committee. Maybe they'll say, or maybe personnel will think. that Joe's getting too big for his britches, that the promotion's made me a little Napoleon. And they'll say, 'Did the guy hurt anybody?', and I'll have to say, 'No,' I got him off the truck before he had a chance to hurt anybody. But I want him canned, and I need you to tell the people what a menace a drunk is-how we can't stand to have 'em around. That'll come better from a safety man than from me."

"Well," I said, "you sure did the right thing to send him home."

Joe got up to go, "Thanks, I knew you'd see it my way. I'll call on you if I need you to back up my recommendation for firing him.

"Sit down, Joe," I said, "We're not through."

Joe's face dropped a foot. "I shoulda known it. Anytime you agree with me, right away you're goin' to come in with a 'Yes-but' angle." He sat down.

"What sort of a record has the guy got?" I asked.

"Good enough, Works hard. But lately he's been edgy, irritable '

"Ever been drunk on the joh before?"

Joe shook his head. "No, but I've seen him in bars a couple of times when he was pretty high. There's some kind of family trouble, I think. He's been hittin' the bottle pretty hard lately, some of the guys tell me."

I put it to him straight, "Look, I'll back you up to the hilt on sending him home since he showed up with drink on him. But I can't back you up on a recommendation to fire-not without more dope

than I've got."

Joe growled, "What am I supposed to do, then? Snoop around and check his breath after lunch every day? Look-you're the last guy in the world who ought to want me to be saddled with a drunk. He'll hurt somebody sure. And I can't handle my bunch if they think I'm snoopin' on a guy—or if they think I don't give a hoot whether they work drunk or not."

"I don't want you to snoop and I don't want you to let a guy work when he's drunk," I said.

"Okay, then, what do you want? What am I supposed to do?" Joe's old temper was flaring, by no means the less brightly because now he could feel self-righteous. "I've worked my tail off to build a good safety program in the Annex, and I figure that had something to do with my promotion to the top job there. I can't put up with screwballs who endanger themselves and the other guys."

I grinned at him. "I remember a screwball I met five years ago in the old warehouse. He wasn't a drunk, but he was a cocky, snooty, reckless guy, who was endangering himself and the other guys. There were some people in the plant who wanted to fire that screwball, too, and they could make a pretty good case for doing it.

Joe looked at me with a sour expression that mellowed quickly into a wry, kid grin. "Might have been a dumb character named Joe, I guess," he said.

"Might have been," I replied.
"Might have been a guy named Joe Kawalski who was holding a job instead of getting canned only because he was a good trucker and labor was tight and good truckers were hard to find. But he was a bad influence in a shop—and a worry to his foreman."

"I was all that," Joe admitted.
"But I wasn't a drunk. Not on company time."

I contradicted him. "You were drunk on company time, plenty. Not on booze, but on anger, on rebelliousness, on a cocky idea that you were too smart and too good to get hurt no matter what you did."

"I'll buy that," said Joe. "So you did an end run on me, got me working on safety, so I had to reform myself. And it paid out, for me as well as you. It turned me from a truck pusher into the boss of the Annex in five years. Pretty good play, Mr. Safety Man, But what's that got to do with me and my drunk?"

"Just this," I said. "You got a break—more of a break than some people thought you had coming. I want you to buy back that break. The only way you can do that is by giving somebody else the same kind of break."

"You mean, just let this stewbum go on workin', tear down my rep, cause a lot of accidents?"

I shook my head. "That isn't what I did with you. I didn't just let you go on the way you were."

"No, I guess you didn't. You were kinda cute about it, but you sure changed my attitude. I guess I could do the same thing you did, if this guy was my kind of guy. But he ain't cocky and tough, he's tense and nervous and a boozer. The gimmicks you used on me won't work on him."

I looked at Joe, hard. "You weren't my kind of guy, either," I said. "I've got my faults, but I wasn't a crazy, chip-on-the-shoulder kid, like you were. But I figured an angle, and it worked."

Joe thought that one over a while. "Okay, that makes sense. But, look, I'm still a dumb guy, maybe, but I don't know how to straighten out this guy. What'll I do, if I don't fire him?"

"I don't know, either," I admitted. "There's no easy, pat answer to that kind of question. But you know him and I don't. And you're in a position to get to know him better, if you're willing to take the trouble.

"But I'll give you two tips, Joe. The first is that there's always a strong point in a guy, as well as a weakness. Yours was leadership, which means a kind of combined common sense and guts. That's what I worked on in you. Find this guy's strong point, whatever it is. Build it up.

"But the booze, if it's really getting him, makes the job tougher



—and you probably can't do too much on that yourself—in fact, if you try, you may make it worse, not better. I've got a phone num-—To page 183



Hats are processed in Dravo's construction department toolroom. One man removes sweat bands from hats while another washes them before dipping in a sterilizing solution. Hats are then rinsed and placed on racks to dry.



With an assist from the toolroom supervisor, employee laces new sweat bands in clean, dry hats. Hats on rack above are ready for new bands.



Transparent plastic bags holding sterilized hats, are heat-sealed and placed in cartons for storage or shipment to new job.

Sealed Safe and Sanitary

WHEN Dravo Corporation of Pittsburgh repackaged such personal items as goggles and hats after they were cleaned and sterilized for re-use, immediate and enthusiastic approval was received from employees.

For every new construction job Dravo must recruit a new group of employees. Each one is instructed in the company's safety policies, alerted on the various job hazards, and issued the necessary personal equipment, such as goggles, safety hats, etc.

The cost of such items runs into such an amount that the corporation must reclaim them at the completion of each project. Cleaning and sterilization of these raincoats, boots, respirators and goggles before reissue was easy, but some way had to be found to give the wearer complete assurance he was getting a clean, sanitary piece of wearing apparel for his personal use.

Such first-hand evidence as a safety hat cleaned, sterilized, fitted with new sweat band, and contained in a new transparent plastic bag, protected against dust and handling, leaves no question in the recipient's mind as to the sanitary condition of his hat.

This direct evidence of cleanliness, and interest in the employee's welfare, has played an important part in gaining full cooperation of employees in other safety practices.

This job superintendent is issuing packaged hard hats and goggles to new employees on a boiler installation job. Safety hats are a must on all Dravo jobs.

Re-issue procedures for hats are used on goggles. Here head bands are removed before goggles are placed in individual packages.





Nuclear Energy Brings New Problems to Industry

By LT. COL. REUEL C. STRATTON

WHILE the original study and development of Nuclear Energy was conducted strictly for military purposes, it was achieved when the first self-sustaining chain reaction and controlled release of nuclear energy took place at the University of Chicago in 1942. This development has been followed by most important contributions to our peacetime industrial welfare and progress.

The use of radioactive material in the form of radioisotopes has already proven valuable in medical, agricultural, scientific research and allied fields. In all probability industrial power from nuclear reactors will be produced on a large scale basis in the not too far distant future. In the meantime, however, there are many potential, yet safe, uses for nuclear energy within industry, many of which may not as yet have been visualized.

Radioisotopes are at work in hundreds of establishments in this country, not only adding to man's research knowledge, but contributing tangibly to his progress in medicine and industry. We have hardly begun to realize the ultimate potentiality of such industrial tools. The use of nuclear energy has progressed so rapidly in such a short span of years that our knowledge of the materials and their uses falls far short of our concept of their potentialities.

There is hardly an area within industry or science today in which there is not some application of radioactive material. For diagnostic and therapeutic purposes within the medical profession the use of radioisotopes has gone far, but as such have probably only scratched the surface. Industry is rapidly awakening to the possible uses of such materials. In general, industry uses radioisotopes either as a source of radiation or as a so-called "tracer" material. Quoting from an article by Dr. Paul C. Aebersold of the Isotopes Division, U.S.A.E.C., radioisotopes may be used as:

Sources

Fixed source (measure change in radiation intensity)

Radiography Thickness of gauge Liquid level gauge Density meter

Movable source (locates or follows a marked object)

Liquid flow through pipe Location of "go devil"

TRACERS

In analytical procedures
In studies of physical transfer
Friction wear
Solid diffusion

In studies of physical-chemical transfer

Detergency

Mineral flotation Movement of preservative In studies of reaction mechanisms Role of catalysts Fischer-Tropsch synthesis Source of coke sulfur

Naturally, such widespread use of radioactive materials by industry must carry with it an awareness of the health and safety factors involved. So far the hazards associated with the use of radioisotopes have been well controlled by the Atomic Energy Commission by allowing the purchase of the radioisotopes solely by those who have demonstrated that they know how to equip for the use of,

to use, and to dispose of the radioactive materials safely.

However, the increasing use of such materials does not permit this control to extend continuously into an industrial program. Consequently following the purchase of the material it behooves the owner and user of such toxic and hazardous materials to establish and to enforce his own safety and health program and to maintain it continuously.

The danger from radiation differs from any other physical or health exposure in industry, in that our senses of seeing, hearing, feeling and smelling do not permit the detection of, nor assist in the precautions required against such dangers. To describe the effect of human exposure to radioactive material, either externally or internally, would require space beyond the scope of this article. Suffice it to say, the use of radioisotopes in industry requires proper construction and equipment, trained employees, correct and continuous instrumentation to determine that the proper safety and health physics standards are maintained.

To assist the members of the National Safety Council, the Industrial Conference has established a Special Committee on Nuclear Energy. This committee is collecting data covering safety and health requirements for industrial uses of radioactive materials. The Special Committee on Nuclear Energy has established liaison representation with groups in certain technical societies and associations, so that each will know of the scope of the other and thus be able to provide the best available advice upon any phase to council members.

Lt. Col. Reuel C. Stratton is Supervising Chemical Engineer, The Travelers Insurance Company, and Chairman, Industrial Conference Special Committee on Nuclear Energy, National Safety Council.

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Faith plus Works

Observations on incidents and people from the Diary of an Industrial Physician

By DR. H. P. DASTUR

MOST people abhor change in their work routine. It affects their sense of security. The first reaction of a new idea on top management generally is to consider it too idealistic for practical use, or unsuitable for Indian conditions, if you should argue that the West has already adopted it with success.

The first reception that the writer received from every grade of supervision when he first started his campaign of accident prevention was invariably something like this, accompanied with a gesture of ridicule. "We have been doing this way for the last thirty years. It is preposterous to suggest anything new. It just can't work."

The first impulse of workers, especially in their present mood of hostility, is to suspect every change as a new weapon for exploiting them. New ideas have to overcome several hurdles before they can take a firm footing in a factory. They have to pass the top executive's tests for worthiness, and they need the supervisors' willing cooperation.

But supervisors regulate their cooperation clocks according to the pendulum swing of the top executive's clock. He is the central control board of the human powerhouse of supervision from where the peripheral switches can be made to tick in an orderly and required fashion. If he has no more than a benevolent sympathy for a new idea, his managers and supervisors can hardly afford even that much.

I was narrating some of the above experiences to a top execu-

tive to obtain his active support, but he protested.

"You know that I am 100 per cent convinced of the utility of your work and you yourself have told me that you get full cooperation from this particular management."

"Conviction is one thing," I replied, "and active support is another, and I repeat that this management is fully well-inclined. But if day in and day out you ask them more questions than they like about production and quality of goods and if you never ask a single one on safety or health, what chance do you give them to advance my work? If you do not



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associate safety with production, how do you expect them to do so?

"You are so busy with your paper work that you forget the human side of your responsibilities. This creates a vicious circle. It increases your paper work till you get submerged under it, and the increase comes mainly from nonproductive subjects like disputes and their aftermath of law suits, misunderstandings and their crops of intrigues and so on. Indeed you are fearfully busy but ineffective as far as human relations in industry go. But they count most. We have to plan on paper, but we have to work with people."

He agreed. I thanked the Lord for small mercies, but prayed for more—that action may follow agreement.

As time goes on, an increasing number of people are deploring the divorce of religion from science. Technical skills have advanced immeasurably, but social skills have receded. A purely mechanical approach gives poor service to the human machine, especially if it ends there; and sometimes it is even a disservice.

The human machine has an emotional side besides a physical one. A mechanical approach seldom touches the right chords of the emotional side and may even play on wrong keys. This side responds best to the moral precepts of honesty, unselfishness, love and so on, common to all religions. And once a response is evoked the human machine gives



Treatment of Low-Voltage Injuries

By HENRY S. BROWN, M.D.

THE voltage present in an accidental electrical contact, even though definitely known, is of no help in evaluating the damage done to the individual.

A large number of variables enter into the situation, most of them unknown, and of little help even if known. Prognosis of an electrical contact injury is one of the most difficult of all accidental injuries to determine and must always be very well guarded.

Occasionally a patient who has been thus injured, sustaining what appeared to be a slight shock with or without a burn of some severity, may suddenly expire several days after injury to confound the physician, who may have reassured employer and family that the injury was a trivial one.

the first is type of current, and it is considered quite axiomatic that alternating current is 300 to 400 per cent more dangerous than direct current. Direct currents of 200 to 250 milliamperes may be borne without serious injury. whereas 70 to 80 milliamperes of alternating current may produce a fatal issue. These figures are in turn de-

In discussing these variables,

pendent on the resistance of the body contacted by the current. Resistance both at the site of contact as well as within the body are important as well as the size and type of electrode encountered. The skin of all parts of the body is the most resistant to electricity and of this tissue the soles of the feet and palms of the hands head the list, the former offering as high as 100,000 ohms resistance, while a calloused palm may offer 1,000,-000 ohms.

The moisture on the surface of the body makes a great difference to skin resistance, perspiration decreasing resistance greatly, and when submerged in water skin resistance may drop to 1,200 ohms. Still another variable is the distance between electrodes and in consideration of resistance the point of entrance of the current is important as well as that of exit.

The pathway of the current is another variable and has much bearing on the effects of the current. The heart is the danger area. Currents from one foot to the other are seldom fatal no matter how great, whereas a trifling current through the chest may prove fatal. Left hand contacts to opposite hand or chest, and especially to feet, are the most dreaded. One writer urges that those visiting power plants keep the left hand continually in a pocket.

Then, as in all disease as well as accident, there is the question of individual susceptibility. Just as some people can lie down in a bed of poison ivy and enjoy a sleep with no evidence of trouble, so can some folks encounter a strong electric power line and escape everything but a slight nudge to remind them of their careless-

Death from electric current generally occurs from ventricular fibrillation of the heart, or a failure of the respiratory center, or sometimes from a combination of the two.

Artificial Respiration

When apparent death occurs from ventricular fibrillation, breathing continues, becomes exaggerated, then fails entirely after about two minutes, and death ensues rapidly. Cardiac function stops and the patient is pale in color, not cyanotic.

On the other hand, with failure of the respiratory center the victim is unconscious, breathing stops, but heart action continues. Fall in blood pressure is rapid. Patient is cold and evanotic. Death ensues within ten minutes unless

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THE SAFETY VALVE



Speeding Up Learning

ONE OF THE early visual aids to education most of us remember clearly is the blackboard back in the grade school. Without it, how would teacher have crammed the three R's into our none too receptive minds?

Spoken words are easily missed or forgotten, even by an attentive audience. But putting the information in outline form on the blackboard makes it much easier to remember. Similarly, pictures, diagrams and tables on wall charts and easels get the points across more effectively and lastingly.

The magic lantern, which provided entertainment in a less sophisticated age, was also found to have educational possibilities. The images projected on a lighted screen in a darkened room had high attention value and fewer distractions than an exhibition in daylight.

Then the movies brought life, action and emotion to the screen. Those of us who are old enough will remember the thrill of those early feeble flickers. Then came sound and technicolor.

The movies, too, have demonstrated a value far beyond the entertainment field. It has been estimated that 20,000,000 persons see non-theatrical films each week. These movies are used in schools, from the grades through college levels. And one of the successful TV programs has been the "Ding Dong School" for pre-kindergarten youngsters. Films are also used for training supervisors, workers and salesmen, and for sales demonstrations. They are invaluable for plant and community safety meetings. Safety movies have traveled far since the Council worked with industry and insurance companies in the production of those pioneer films, Ask Daddy and The Fall of Man.

Movies, however, have not crowded out the still pictures which now include a vast variety of safety topics. Much less expensive than movies to produce and requiring much simpler equipment, slidefilms are unexcelled where the object is instruction rather than motivation.

The National Safety Council's Film Directory, included in this issue, will be a revelation to many safety men of the number of training aids now available to add interest and effectiveness to their

safety programs. With this section will be found some helpful hints for making effective use of these aids to safety teaching.

Praise Is Comely

THE LATE Dr. Harold Hulbert, a psychiatrist well known in safety circles, once said that a boss ought to hand out at least two pats on the back for every kick in the pants. Other studies have confirmed this estimate of the relative importance of praise and censure.

Dr. W. A. Eggert, chief psychologist for Lumbermens Mutual, gives some figures on the results of various supervisory attitudes on a worker's production.

Public reprimands, he reports, brought improvement in 40 per cent of the cases; private reprimands in 83 per cent. When sarcasm was used, either in public or in private, the results were decidedly worse.

But when the boss was able to praise a man in public, the results were almost miraculous: Improved, 91 per cent; same 8 per cent; worse, only 1 per cent.

The conclusions might be stated this way: Praise a man if you can; if you must reprimand him, do it in private, and be cautious with sarcasm.

Of course, praise occasionally may give an individual a swelled head. But, in general, when you can make a man feel important in the eyes of his fellow workers you have achieved a miracle in industrial relations.

In This Issue . . .

LIKE THE SAFETY MOVEMENT, the aircraft industry has owed much of its progress to the sharing of knowledge. Continued progress in aeronautical safety demands cooperative action. No one could have all the answers. (Page 18)

In countless disasters, the U. S. Coast Guard has lived up to its motto, Semper Paratus (always ready). In this article, Admiral Olson discusses some of the aspects of disasters on land as well as at sea, with suggestions for minimizing loss of life. (Page 20)

Lots of men who served with the Foreign Legion didn't have as many adventures as Earl Sang, safety director for ACF's Huntington plant. Out of his experiences in war and peace came a strong desire to keep men from killing themselves through ignorance and neglect of commonsense precautions. (Page 26)

The alcoholic is a problem in many a plant. Firing him may end the problem as far as his present employer is concerned but industry can't dodge the social implications involved. Understanding treatment of the case brings results in this installment of *The Diary of a Safety Engineer*.

Carman Fish

SMALL BUSINESSES and ASSOCIATIONS



Is "Small Business" on Your Local Conference?

Our Small Business Committee has been urging program chairmen of local safety conferences to feature the important subject of "Small Business" at all 1953 and 1954 safety conferences. Sessions should be for the ultimate "consumers," the executives of small independent companies, or for groups able to reach and help small business. If your local conference has not yet made such plans, you can help by doing this:

1. Urge your local safety council to schedule this subject. Your program chairman will undoubtedly appreciate your suggestions and help.

Offer to help set up such a session and perhaps even participate in it.

 Notify our Small Business Committee of the name of the program chairman so we can follow up and supplement your efforts.

Sections Getting Action

Most of our 27 industrial Sections have set up association or small business committees within their Executive Committees and several have planned activities which will be described later. However, from where we sit, two sections stand out head and shoulders above the others.

The Food Section's Association Committee, headed by Gregg Meyers of Blatz Brewery, got off to a fast start in 1953. Gregg spent considerable time in our office working with Bob Gidel, staff representative and your reporter. He followed through by writing a strong letter to all members of the Food Section Executive Commit-

tee, transmitting a list of associations in each member's division and urging the officers to work through channels to get all these associations started on some form of safety program.

Bill Leonard, safety director for the Southland Corporation, Dallas, and chairman of the Ice Division of the Food Section, has responded in an outstanding fashion. Bill also stopped in at the office for help and sent the letter to 35 associations urging them to get help from this group. He also sent 400 mimeographed letters to smaller companies telling them about the Council's program and requesting a little information from them.

The Wood Products Section Association Committee, headed by Jeff Macon, of the Southern Wood Preserving Company, Atlanta, is doing an equally fine job. The nine other men on his association Committee have been asked to follow up on the list of associations and to suggest that the association:—

1. Appoint a liaison man to work with the Section

2. Exchange insurance and statistical data

 Secure help from the Section and the Council's Small Business Committee.

Mr. Macon's committee has set the goal for a safety program in at least one association in each of the nine industry groups.

One committeeman, Louis Glazer, Dierks Lumber & Coal Company, recently wrote to six Chicago associations suggesting they get in touch with us.

What is your section doing in the field of small business and associations safety? Someone has to start the ball rolling—why not you?

More "Small Business" Sessions?

Some of the "small business" sessions at regional safety conferences and association meetings have been strangely devoid of any worthwhile representation from small companies.

This same mis-mating of audience and subjects undoubtedly has prevailed for many years in conferences of all types but since our particular interest is safety in small business it is disappointing when only a fraction of our small business session audiences actually come from small business. All too frequently, actual checks at several conferences showed that few managers from small companies were on hand to profit by the inspiration and technical data so freely dispensed by professional safety speakers.

More and more program planners are beginning to appraise their probable audience as well as the experience of speakers when scheduling certain sessions or subiects. As far as small business executives are concerned, if no special effort can be extended to get them to safety conferences. then small business talks should not be directed toward them. It might be better to talk to them on their own home grounds-at a time and place convenient to them. On the other hand, many of us who attend safety conferences are able to reach and help small business and are looking for ideas on how to do it.

So, there is a need for small business sessions providing the subjects are keyed to the audience.

That is our observation; what is yours?

A good rule to remember: There are a great many times when you cannot find help, but there is never a time when you cannot give it.

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—applies the cleanser, scrubs, flushes if required, and damp-dries the floor—all in one operation? Job-fitted to specific needs, a Scrubber-Vac provides the maximum brush coverage consistent with the area and arrangement of the floors.

Model 213P, shown in illustrations at left, is designed for heavy duty scrubbing of large-area floors. It has a 26-inch brush spread, and cleans up to 8,750 sq. ft. per hour! Finnell makes still larger sizes—in gosoline as well as electric models—and also sizes for smaller operations. From this complete line, you can choose the Scrubber-Vac that will put your floor-cleaning on a production basis and reduce labor costs. And you can lease or purchase the machine. Maintenance men like the convenience of working with a Scrubber-Vac. This all-in-one unit is self-propelled, and has a positive clutch. There are no switches to set for fast or slow—slight pressure of the hand on clutch lever adjusts speed to desired rate. The powerful vac performs quietly.

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PERSONALS



NSC Editorial Changes

Personnel changes in the National Safety Council's Editorial Division, which is responsible for the Council's ten monthly magazines, have been announced by Paul Jones, manager of the Department of Public Information, to become effective at once.

NORVAL BURCH has been appointed editorial director to succeed Felix B. Streyckmans, who has resigned. Mr. Burch has been editor of the Industrial Supervisor and associate editor of National Safety News for the last nine years, and also is editor of the new council magazine, The Safe Builder. He came to the Council after wide experience on magazines and on newspapers in Chicago, Louisville and other cities in Kentucky.

Recently Mr. Burch was a guest of the Military Air Transport Service on a flight of several thousand miles in the Orient, gathering



Norval Burch

material for his current series of articles in the NATIONAL SAFETY NEWS on the MATS ground safety program.

He will continue to edit the Industrial Supervisor and The Safe Builder.

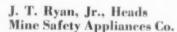
Departure of Don Moore to join an advertising agency in Phoenix, Ariz., after 10 years on the Editorial Division staff as editor of The Safe Worker and The Safe Driver, necessitated other reassignments.

Tom Dodds, associate editor of the News and editor of The Safe Railroader and Congress Transactions, becomes editor also of The Safe Worker.

Frank Davin, editor of *Public* Safety, also assumes editorship of The Safe Driver.

ALICE M. CARLSON, formerly editor of *The Family Circle*, Continental Casualty Company, has joined the Council staff as editor of *Safety Education*.

HAZEL L. BEMAN has become editorial assistant on the staff of the News and Congress Transactions.



Election of J. T. Ryan, Jr., as president of Mine Safety Appliances Company has been announced. He succeeds George H. Deike, Sr., who was named chairman of the board.

Mr. Ryan is the son of the man who, with Mr. Deike, founded the concern in 1914. Initially, the company served only the mining industry but today its products are used by virtually every industry, municipalities and the armed forces.

Mr. Ryan, graduate of Pennsylvania State College, in 1934, received an M.B.A. degree at Harvard. He began his business career as sales engineer with the company in 1936. In 1948 he was elected to the board of directors and named executive vice president.

Active in civic affairs in the Pittsburgh area, Mr. Ryan is president of Pittsburgh Hospital,



J. T. Ryan, Jr.

director of Tristate Industrial Association, Mercy Hospital, Pittsburgh Symphony Society and vice president of Metropolitan Pittsburgh Educational Television Station.

Recently, Mr. Ryan received the 1953 Duquesne University Management Award for "leadership in management," presented by Duquesne Chapter, Society for the Advancement of Management.

Mr. Deike received his B.S. degree in Mining Engineering at Pennsylvania State College in 1903 and in 1948 a graduate degree of Engineer of Mines. He had been president of Mine Safety —To page 136



George H. Deike, Sr.



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GREEN CROSS NEWS



Activities of Local Safety Councils and Chapters

Compiled by TOM A. BURKE

Director of Local Safety Programs, Field Organization, NSC

Dramatic Presentation

The Downtown Kiwanis Club in Omaha recently staged a "surprise program" that turned out to be a novel safety show. It was arranged and directed by Bob Stevens. manager of the Omaha Safety Council. While there was a lot of fun on the program there was also a serious interlude that featured one very dramatic episode. Six candles placed on the head table were lighted as the program started. Every six minutes a somber-clad Kiwanian interrupted the proceedings just long enough to quietly snuff out one of the candles. While the sixth candle was still burning Stevens explained that as each candle had been put out a human life had been sacrificed somewhere in this country in an accident. "And that one candle that is still burning represents one more person somewhere in these United States who right now has just three minutes to live! Then his life, too, will be snuffed out in a needless accident," Stevens con-

Michigan State Conference

Concluding one of the most successful gatherings in its 23-year history, the 1953 Michigan Safety Conference held at Grand Rapids, April 21-23, registered an attendance of over 1,500 business, industrial and educational executives directly concerned with accident prevention. Eight participating divisions held 34 departmental meetings headed by well known speakers including Dr. Herbert Stack of New York University, Dr. Arthur Secord of Brooklyn Col-

lege, New York, Paul Jones, NSC, Lee M. Thurston and Eugene B. Elliott, prominent Michigan educators and Glenn Massman, executive secretary of the Dayton Foreman's Club. An office safety session was one of the new program features that attracted favorable attention. Elon Schantz, executive secretary of the organization, reports that the 1954 Conference will be held in Detroit.

Onondago Council Formed

The Onondago County Safety Council was organized on April 14 at a meeting of some 30 public officials, industrial and commercial leaders and heads of local Chambers of Commerce throughout the county. The meeting was held in the offices of the Chamber of Commerce in Syracuse. The Safety Division of the Syracuse Chamber is taking an active interest in setting up the new organization, according to Manager Walter L. Fox. Edwin S. Smith, NSC Eastern Region manager, assisted in the organizational work.

Sam W. Burchiel

Sam W. Burchiel, a pioneer in community and state safety effort, one of the founders of the Automobile Club of Rhode Island and its president from 1931 to 1942 when he became general manager, passed away in Providence on February 19, following a lingering illness. For 15 years Mr. Burchiel was a member of the Board of Directors of the American Automobile Association, With the late James B. Barrett, he founded the Automobile Club of Rhode Island in 1925. His leadership and fine

devotion to the safety cause has been a real contribution in his home city of Providence and throughout the state. He is survived by his widow and two sons.

Public Speaking Series

The Industrial Safety Section of the Greater Cleveland Safety Council is planning, with the Northern Ohio Chapter of ASSE, a threesession course on "Human Understanding-a Two-Way Communication." The course, which will be held Friday evening May 22 and all day Saturday May 23, will be conducted by Dr. Irving J. Lee, Professor of Public Speaking, the School of Speech, Northwestern University, Evanston, Illinois, This will make the fourth series of three-session courses which have been conducted by the Greater Cleveland Safety Council in recent years. The average attendance has been 150 persons. This year the course subject will be public speaking as applied to safety.

Local Councils in New York

There are 27 local safety councils in the State of New York according to a recent announcement from Daniel P. Webster, safety co-ordinator for the Division of Safety, New York State. The bulletin points out that the local safety councils are usually the backbone of the safety programs in the communities in which they are formed. Of the 27 safety councils in the state, 15 are affiliated with the National Safety Council. A majority of the councils, with other types of safety organizations, are also



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INDUSTRIAL HEALTH



Abstracts of current literature on Industrial Hygiene, Medicine, and Nursing

BY F. A. VAN ATTA Industrial Department, NSC

Reaction to Heat

Examination of Heat Stress Indices, Usefulness of Such Indices for Predicting Responses of African Mine Laborers. By C. H. Wyndham, W. Van der Merwe Bouwer, H. F. Patterson and M. G. Devine. The A. M. A. Archives of Industrial Hygiene and Occupational Medicine 7:221-233 (March 1953).

This investigation was carried out to establish the relationship between physiological responses such as heart rate, body temperature and ergometer score and the indices, effective temperature scale, wet katathermometer and sweat rate index which have been suggested for predicting the effects of heat stress.

The experimental subjects were eight African mine laborers who were given 16 days of training in a relatively cool area at the surface and were then given 23 days of acclimatization spread over four and one-half weeks at 91 degrees Fahrenheit wet bulb with wind velocities between 100 and 150 feet per minute. Following this there were 40 days of experiments at varying environmental conditions which were accomplished in seven weeks.

The daily experimental routine was precisely that used by the Medical Research Council in Great Britain in their work on high temperature responses so as to make this work comparable with that which is done in Great Britain. Each experiment lasted four hours which was divided between rest and work, mostly 30 minutes working alternating with 30 minutes of rest except that the first ten minutes was resting and the last rest period was 60 minutes followed by 20

minutes of work. At the end of each four-hour experiment, the subjects performed once on an arm ergometer to measure working efficiency. This test consisted of raising and lowering the weight as fast as possible until the laborer was exhausted which was judged to have been reached when the man was unable to lift the weight from the ground.

The relationships between the rectal temperatures, the heart rates and the sweat rate index for the experimental conditions are relatively linear. The relationships of the physiological responses with the effective temperature and the wet katathermometer reading are extremely non-linear. This is because the rate of increase of body temperature with increasing environmental temperature, the rate of increase of heart rate, and the sweat rate index are all essentially hyperbolic functions of increasing environmental temperature, all of them increasing rather slowly up to 88 degrees Fahrenheit wet bulb and very rapidly from that point

The relation between wet bulb temperature and effective temperature or wet katathermometer temperature is a straight line in each case. The effect of varying wind velocity on effective temperature and katatemperature is also quite large at lower wet bulb temperatures and decreases as the wet bulb temperature increases. The sweat rates and the other physiological responses, on the other hand, are not greatly affected by wind velocity at low temperatures, but the effect increases as the wet bulb temperature increases.

As part of the routine in this series of tests, the experimental subjects were required to work at varying rates, at varying temperatures and wind velocities. The physiological responses are markedly affected by the rate of energy expenditure. The sweat rate index rather automatically corrects for rate of energy expenditure since sweating is markedly affected by this.

A rather peculiar fact is that none of the three indices correlated very well with the results of the ergometer tests. The ergometer scores decreased very rapidly between 82 degrees and 90 degrees and at 90 degrees they leveled off so that there was essentially no change between 90 and 96 degrees wet bulb. This makes a non-linear relation with any of the indices of physiological stress which were tested.

Air Pollution from Sulphuric Acid

The Reduction of Atmospheric Pollution from Sulphuric Acid Recovery Processes, by N. W. Clauss. Air Pollution and Engineering Divisions, The American Industrial Hygiene Association, Fourteenth Annual Meeting April 23, 1953.

IN A PROCESS for the production of alcohol by the absorption of olefins in sulfuric acid, the spent sulfuric acid is concentrated in air-blown concentrators. This method is desirable because of the relatively cheap concentration obtained, but it does produce a sulfuric acid mist which is discharged to the atmosphere. The problem of air pollution by the —To page 146

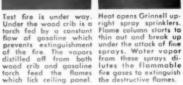


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- cool fire gases to prevent fire from spreading-by the faster evaporation of the smaller water droplets
- control fire by producing an unburnable mixture of flammable vapors and water vapor
- dilute and diminish supply of flammable vapors with water vapor . . . evaporation of water removes heat, stops the distillation of the flammable vapors from solids-and from many liquids



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VENTS



June 2-4, Chicago

Greater Chicago Safety Conference and Exposition (Conrad Hilton Hotel). Joseph F. Stech, manager, Greater Chicago Safety Council, Suite 806, 10 North Clark St., Chicago 2.

June 4-6, Portland, Ore.

Nineteenth Annual Forest Products Safety Conference (Multnomah Hotel). Pat Reiten, secretary, Simpson Logging Co., Shelton, Wash.

June 11, Superior, Wis. Upper Mississippi Valley and Lake Superior Safety Conference,

Sept. 16-17, Harrisburg, Pa.

Pennsylvania Industrial Safety Conference (Hotel Penn Harris). Frank K. Bohl, deputy secretary, Department of Labor and Industry, Room 304 South Office Bldg., Harrisburg, Pa.

Sept. 17-18, York Harbor, Me. Twenty-sixth Annual Maine State Safety Conference (Marshall House). A. F. Minchin, secretary, Industrial Safety Division, Department of Labor and Industry, Augusta, Me.

Oct. 19-23, Chicago Forty-first National Safety Congress and Exposition (Conrad Hilton Hotel). R. L. Forney, general secretary, National Safety Council, 425 N. Michigan Ave., Chicago 11.

Nov. 17-18, Cincinnati, O.

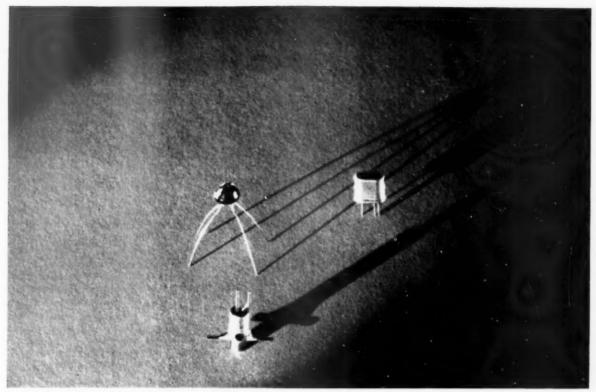
Third Annual Greater Cincinnati Safety Conference (Sheraton-Gibson Hotel). Kenneth R. Miller, executive director, Greater Cincinnati Safety Council, 1203 Federal Reserve Bank Building, Cincinnati 2, Ohio,

Dec. 7-8, New Orleans, La.

Louisiana Safety Conference (Roosevelt Hotel). Charles E. Doerler, conference secretary. Address, c/a Caddo Bossier Safety Council, Inc., 610 Edwards St., Box 806, Shreveport, La.

March 10-11, Philadelphia, Pa.

Twentieth Annual Philadelphia Regional Safety and Fire Conference and Exhibit (Bellevue-Stratford Hotel). Walter W. Matthews, managing director, Philadelphia Chamber of Commerce Safety Council, Architects Building, 17th and Sansom Streets, Philadelphia



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11:5(4):41 Hoists Trolleys Cranes

THE READERS' POINT OF VIEW



current interest are invited They need not agree with

The Right Words

NEWARK, N.J.—The editorial in the April issue, Watch Your Language, in my opinion, added further confusion to safety terms involving the word "hazard."

I agree that the expression "safety hazard" is objectionable. The word "hazard" is a noun meaning "source of risk." The word "safety" also is a noun meaning "condition of being safe: freedom from hazard." When you out these two nouns together, what you have is questionable.

The suggestion of using the words "accident hazard" instead of "safety hazard" only confuses the situation further. An accident usually is defined as "an event that takes place without one's foresight -especially one of an unfortunate character." When you combine these two nouns into "accident hazard" you have again two meanings which do not add up properly.

The real answer is to use the word "hazard" alone. It is a noun, clear and definite enough to stand alone. Why confuse its meaning by adding additional words?

I have looked through outlines on four conferences on fundamentals of safety and 40 safety meeting outlines covering a wide variety of subjects. I have never used the expressions "safety hazard" or "accident hazard." I have used the word "hazard" alone. Its meaning is perfectly clear: for example, recognize the hazard, eliminate or guard against the hazard. "Hazard" is used in combination with many descriptive words; for example, mechanical or physical hazard, electrical hazard, and fire hazard.

G. W. BOWER

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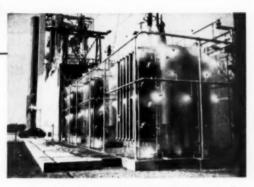


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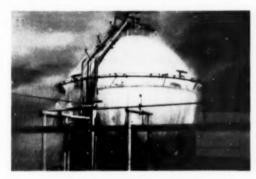
Deluge Systems, Wet Pipe Systems, Dry Pipe Systems, Water Spray and Fog Systems, Rate-of-Rise Sprinkler Systems, Foam and Carbon Dioxide Extinguisher Systems... all carry Insurance Underwriters Approval.

"LITTLE JOEY SPRINKLER"

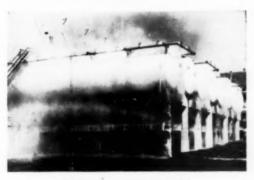




HOLDING TRANSFORMER FIRES TO A MINIMUM



COOLING OFF CHEMICAL "HOT HEADS



PROTECTING FLAMMABLE GASES

BLAW-KNOX

AUTOMATIC
PROTECTION SYSTEMS

THE ACCIDENT BAROMETER

Prepared by the Statistical Division, National Safety Council

Accidental deaths in February totaled approximately 6,400, a decrease of 2 per cent from last year. There were small reductions in deaths from public non-motor-vehicle and occupational accidents. Home accident fatalities showed a small increase while motor-vehicle deaths numbered about the same as in February, 1952.

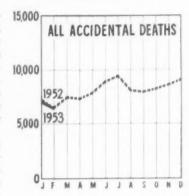
The total for the two months was 13,300, a reduction of 2 per cent from last year's comparable total of 13,600. Decreases were recorded in deaths from home, public non-motor-vehicle and occupational accidents. Motor-vehicle accident fatalities were more numerous than in 1952.

Motor-Vehicle Deaths

The February total of motorvehicle deaths was 2,630, about the same number as occurred last year. Compared to 1951, it was an increase of 12 per cent.

Deaths for the two months totaled 5,470, an increase of 4 per cent over the 1952 total of 5,280. The two-month death rate per 100,000,000 vehicle miles was 6.7, a reduction of 1 per cent from the 1952 comparable rate of 6.8.

Of the 47 states reporting for two months, 20 had fewer deaths than in 1952 and 27 had more deaths. Reporting cities with populations over 10,000 showed a reduction of 2 per cent for February and 7 per cent for the two months.



		1953	1952	Change
Febru	nary	6,400	6,500	- 2%
Two	Months	13,300	13,600	- 2%

Regional changes from 1952 in the two-month death totals were:

North Atlantic	+ 9%
South Atlantic	- 2%
North Central	+11%
South Central	- 5%
Mountain	+ 8%
Pacific	+ 5%

Occupational Accidents

Deaths from occupational accidents numbered approximately 900, a decrease of 100 deaths from February last year. The two-month death total was about 2,000, a reduction of 2 per cent from 1952.

The February frequency rate per million man-hours in seventeen sectional accident prevention contests conducted by the National Safety Council was 5.98, a reduction of 9 per cent from last year, The two-month rate decreased 8 per cent—from 6.56 in 1952 to 6.06 in 1953. The February rate for plants in community council contests was 5.71, a decrease of 19 per cent from last year. The two-month rate was 6.03, a reduction of 24 per cent.

Public Deaths

There were approximately 700 deaths from public non-motorvehicle accidents in February, or 100 fewer than in February, 1952.

Deaths during the two months numbered about 1,500, a reduction of 6 per cent from last year. There were decreases in deaths from falls, firearms and transportation accidents, Fatal burns were more numerous than last year, while drownings showed no change. Most of the improvement occurred among persons 25 to 44 years of age, but deaths of children 5 to 14 years old and persons in the age groups 15 to 24 years and 65 years and over also were less numerous.

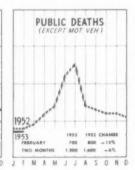
Home Deaths

February deaths from home accidents totaled approximately 2,300, an increase of 5 per cent over last year.

Deaths for the two months totaled 4,700, a reduction of 6 per cent from 1952. Decreases were recorded in deaths from burns, poisonings, mechanical suffocation and firearms accidents. Fatal falls numbered about the same as last year. There was no change in deaths of persons 65 years and over. Other age groups showed decreases with the largest change recorded for young people 15 to 21 years of age.









ANOTHER NEW

designed for longer life - lower cost eye protection

SPLIT-JOI Model 80 PLASTIC FRAME SPECTACLE

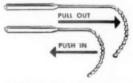




To remove lens, simply remove the temple hinge screw and frame clip.
Spread the Split-Joint and lens falls out. Reverse procedure to insert lens firmly in frame.



Double bridge design strengthens frame eliminating possibility of breakage. Lower section forms comfortable fitting nose-bridge



Eye Savers new Plastic Retrax" Temples are easy to fit safer and more comfortable to wear

See Your Authorized Eye-Savers Jobber for complete details and demonstration or write direct.

QUICK, EASY LENS REPLACEMENT No Special Heaters Required ...

The need for special heaters which often cause stretched or warped frames is eliminated by the Split-Joint Frame. A simple operation and lenses are easily removed and new lenses quickly inserted. Once inserted, lenses stay firmly in place. All parts are standard and replaceable at low cost.

NOSE-BRIDGE GIVES EXTRA STRENGTH Proven Design Fits 90% ...

Double bridge design more than doubles strength of Split-Joint frame. Nose-bridge fits 90% of all faces — as proven in actual use on the famous "Tuc-Away". It fits ON the nose is more comfortable — does not pinch or effect the sinuses. One size bridge eliminates stocking various frame sizes.

EXCLUSIVE NEW PLASTIC RETRAX TEMPLES Easily Adjusted by the Workers...

Retrax* Temples easily telescope in or out to any desired length and stay firmly in position. Extra-tough for long wear, these Plastic Temples are safer — no metal. Temples are more comfortable around the ear because new "ball-chain" ear hook fits itself into the cartilage in back of ear.

TWO SIZES AVAILABLE: Split-Joint Plastic Frames are available in two sizes to hold 45 x 48 mm and 42 x 44 mm lenses. Use them to insert your own safety lenses (prescription or plano). Or buy complete with regular 45 x 48 mm or 42 x 45 mm hardened safety glass lenses — 6.0 base or 1.25 base curves — in clear or 1, 2 or 3 green shades.

*Trademark

Quality Eye Protective Equipment

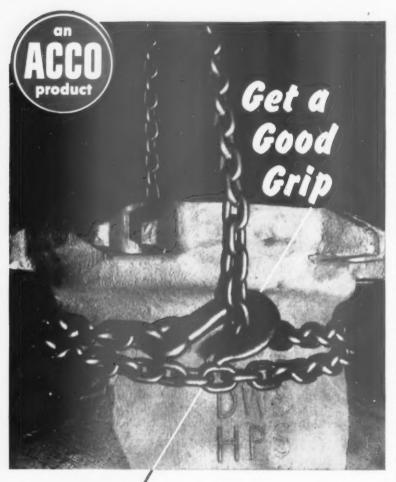
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ACCO Registered Sling Chain

• ACCO Registered Sling Chains are engineered to the job. The rings, the links, the hooks—all parts are built and tested together as a complete unit.

Look at the rugged design of the unretouched hook in the photo above. See the good grip it has on the tough yet light-in-weight, easy-to-handle Endweldur chain. Think of the lifting safety and efficiency you would get from ACCO Registered Sling Chains in your own shop.

Your American Chain distributor will give you facts and specifications on ACCO Registered Sling Chains. Call him today or write us for DH-314 ACCO Registered Sling Chain Catalog.



AMERICAN CHAIN DIVISION
AMERICAN CHAIN & CABLE

York, Pa. Atlanta, Chicago, Denver, Detroit, Los Angeles, New York, Philadelphia, Pittsburgh, Portland, San Francisco, Bridgeport, Conn.



Low-Voltage Injuries

-From page 38

artificial respiration is instituted. Artificial respiration must be kept up for hours if need be until rigor mortis or post mortem lividity begins to occur or unless the victim is pronounced dead by a physician.

Then there are the delayed deaths occurring minutes, hours, or even days after the contact due to sudden dilatation of the heart or internal hemorrhage in some of the vital centers.

The local lesions that occur as a result of electric contact may be trivial or extensive and, because of this fact, what the end result will be in each individual case can never be accurately foretold. A harmless looking surface burn may turn out to be deep, with charring of tissues clear through to and including bone. Often when these deep burns slough, alarming hemorrhage may suddenly result if a vessel of sufficient size is involved.

Falls that result from the electrical contacts often produce more shock even to the extent of fatality, than the electrical contact itself.

So much for the morbidity resulting from these accidents. As to treatment, even less need be said.

First of all, with due caution, the victim should be freed from the contact as quickly as possible, though in many cases enough electromotive force is generated by the contact to throw the victim clear.

Artificial respiration should be started at once carefully and methodically. Operators should be changed often enough so that the procedure may be kept up for hours if need be without undue fatigue. The arm-lift, back pressure method has been approved by many organizations and is rapidly replacing the Schafer prone-pressure method. The latter method, however, may be used if the operator is more proficient in it.

Mechanical respirators and inhalators are considered dangerous in these cases.

Obviously, no method of artificial respiration will restore a fibrillating heart, even though

some claim that a degree of cardiac massage is possible through the abdomen or chest wall.

As soon as possible hospitalization should be arranged, where oxygen and carbon dioxide may be of assistance in re-establishing normal respiration and other methods for combating shock may be available. Very few if any drugs are of help in combating electric shock. Dr. Cecil Drinker, an outstanding authority, says caffein and sodium benzoate given intravenously may help, but relegates all other stimulants to the discard in the case of electric shock.

Atomic Energy Program Reduces Injury Rate

The injury rate in the nation's atomic energy program decreased by one-third in 1952, the U. S. Atomic Energy Commission reports. Injuries in the program during 1952 occurred at a rate of 2.51 per million employee-hours—33.3 per cent below the 1951 figure. The rate for all United States industry in 1951, the latest available from the National Safety Council, was 9.06 injuries per million employee-hours.

A breakdown of the 1952 safety figures follows:

1. Operations contractors in the atomic energy program set a rate of 2.29 employees injured per million man-hours, compared to 2.69 in 1951. The NSC 1951 rate for the chemical industry, the nearest comparable, was 5.48.

2. With an 80 per cent increase in construction man-hours in 1952, workers incurred a construction injury rate of 2.71, which was 47 per cent lower than the 1951 rate. The NSC rate for all 1951 construction was 20.92.

3. AEC direct employees had 1.96 injuries per million manhours in 1952, compared with 1.95 in 1951. The rate for all Federal civilian employees for 1951, issued by the Bureau of Employees' Compensation, Department of Labor, was 8.4.

4. The rate for governmentowned motor vehicles was 1.4 accidents per 100,000 miles driven by employees of AEC and its contractors in 1952, compared with 1.6 in 1951.



ACCO Registered DUALOC Slings are Lifting Tools

• DUALOC Slings, whether strand-laid or cable-laid, provide the material handling engineer with a tool of known strength and safety factor throughout. The design is modern . . . tested . . . and proved in service.

The DUALOC Ending insures sling strength equal to the FULL catalog strength of the wire rope, and the "Registry" specification requires that all fittings have strength equal to that of the wire rope. These are the basic reasons why ACCO Registered DUALOC Slings have set industrial sling standards.

You can get DUALOC Slings and Fittings from the stock of your ACCO Sling distributor. See him today or write our nearest district office for his name.



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THE SAFETY LIBRARY



Books, Pamphlets and Periodicals of Interest to Safety Men

BOOKS AND PAMPHLETS

Planes and Personnel

Human Factors in Air Transportation, by Ross A. McFarland, Ph.D. Published by the McGraw-Hill Book Company, Inc., 330 West 42nd Street, New York 36, N. Y. 1953, 830 pages, Price \$13.00,

IN THE PLANNING and writing of this book, the author apparently set his goal to reach all air transportation people interested in improving efficiency of personnel performance and in the reduction of personal injury and equipment damage. This he has done in a style which provides easy reading to the non-medical man and which, furthermore, appeals to managers' and supervisors' business sense as well as their interest in the personal well-being of aviation employees and the public. Practically no phase of the air transport industry is untouched.

The early parts entitled "Selection and Training of Flight Personnel" and "Maintenance of Health and Efficiency of Flight Personnel" provide valuable data and suggestions concerning psychological and physical factors, indoctrination and training, the aspects of fatigue and the implications and influence of physical and mental aging.

"Selection, Placement and Health of Ground Personnel" deals in detail with a phase of air transportation safety which is often covered only lightly. The emphasis of this subject is reflected in one of the author's statements that, "the inventory of equipment and working conditions shows large numbers of hand and power tools, paints, solvents, cleaning agents, powered vehicles, and other items, each with its

peculiar potential hazard. In fact, in the ground units of every operating airline, there are at least seventy different activities, involving highly diversified skills."

Part V, "Safety on the Ground and in Flight" deals with the prevention of ground operation accidents and survival and rescue in aircraft accidents. This part consists of the industrial safety movement and air transport ground safety record, and analysis of the nature and cause of airline accidents and the evaluation of and basic principles for effective accident prevention work, as well as all of the aspects of forced or crash landings on water or land.

"Sanitation and Health in Airline Operations" is the subject of part VI. It concerns many factors of this subject as they are applicable to employees, passengers, and the general public. Sanitary control of airports and ground facilities as well as health and quarantine regulations in air travel are of importance, especially in view of the wide geographical scope of operations.

Detailed treatment of subjects concerning care and contentment of passengers, and air transportation of patients provides the make-up for "Passenger and Service Problems." This part discusses numerous aspects of the carrying of special-care passengers and patients by air as well as so-called normal passengers.

The final part regards "Health and Medical Services in Air Transportation." Its scope is wide, ranging from the development of preventive medicine and industrial health services to an analysis of medical costs in air transportation and expected benefits from adequate health and safety programs.

For the busy man who wants only superficial reading of this subject, an appealing feature of the book is the comprehensive summary as the concluding section of each chapter. A selected bibliography follows each chapter for those who want to do reading and study beyond the scope of this book. The book can be recommended to operations people as well as to directors of safety, medical and personnel departments. Flight crew supervisory and management people should find much of value and interest applicable to their work. Passenger and cargo, maintenance and communications directors and supervisors should gain further insight toward improved production. Engineering and properties department heads and staff will find considerable useful reference in its contents. It can well be considered an excellent aid to an understanding of the common denominator of accident prevention -the person.

Howard H. Warzyn

Chemicals

Ethyl Acetate. Published by Manufacturing Chemists' Association, 246 Woodward Building, 15th and H Streets, N.W., Washington 5, D. C. 13p. 25c. (Chemical Safety Data Sheet SD-51).

Health

Health Services in Industry. A 1951 Survey by the National Association of Manufacturers and a 1950 Survey of the American College of Surgeons. Reprinted from Health Resources in the United States by The Brookings Institution. 1952. p. 241-331. Available from the National Association of Manufacturers, 14 West 19th St., New York 20. Single copy free.

Seventeenth Annual Meeting, Industrial Hygiene Foundation. Published by Industrial Hygiene Foundation of America, 4400 Fifth Ave., Pittsburgh 13, Pa.



Used in wide variety of applications throughout industry

Improve workers' safety . . . health . . . comfort . . . efficiency



to ventilate tanks, tank cars, drums, vats, underground cable manholes, pipe galleries, airplane wing compartments, fuselages and other confined places. Uses 8" diameter flexible canvas tubing ("Ventube").



charges welding fumes from double-bottom compartment in naval vessel under construction. Large volume of air handled quickly expels fumes and results in good ventilation. Vano Design "B" can pass through opening only 14" in diameter. Uses 8" diameter flexible canvas tubing ("Ventube").



"C" VENTILATOR here withdraws fumes from a reactor kettle. This ventilator can be furnished with 8" suction inlet for 8" non-collapsible suction tubing — or multiple inlet nozzles for 5", 4", and 3" suction hose. The discharge may be connected to 8" "Ventube." Capacities furnished on request.



on any job where workers are continually or periodically required to work in excessive heat. Available in two types, three sizes in each.



VENTAIR DESIGN
TE-4 VENTILATOR
Gasoline Engine
Driven, here delivers
air into underground
manhole. These ventilators provide fresh
air to men in confined

places, promoting safety, comfort, and increasing efficiency. Ideal where no electric current is available. Delivers 1700 CFM of fresh air. Uses 8" diameter flexible canvas tubing ("Ventube").



PORTAIR NO. 4 BLOWER EX-HAUSTER exhausts fumes resulting from soldering, welding, tank coating, is also used in ventilating small tanks. It is designed to permit attachment of 4" flexible metal hose. Capacity: 425 CFM free air.

ATTACH THIS COUPON TO YOUR COMPANY LETTERHEAD

	ion on supplying fresh air		's Safety Directory and Mining Catalogs.
in tanks, tank cars, drums, etc. in underground cable manholes in aeroplane fusilages, wings, etc. an coke avens an steam-heated subber processes	on boiler repair jobs COOLING: motors, generators, switch-boards wires and sheets general man cooling	around cracking stills exhausting welding fumes stirring up stagnant air wherever men are working or material is drying drying of walls, sheets, etc., after treated with coating material	Name Company
Write here any special venti- lating problem you may have	{	***************************************	

FOR DISTINGUISHED SERVICE



National Safety Council Awards for Outstanding Records

THREE types of awards for outstanding performance in industrial accident prevention are provided for in the "Plan for Recognizing Good Industrial Safety Records" adopted in January, 1952, by the Industrial Conference and the Board of Directors of the National Safety Council.

The three types of awards are:

1. The Award of Honor, the highest award, replaces the Distinguished Service to Safety Award. It goes to industrial establishments whose experience meets rigorous statistical standards, even though it may not be injury-free. It also goes to those which complete 3,000,000 manhours without a disabling injury.

2. THE AWARD OF MERIT has similar but less exacting requirements. The standards for non-perfect records are somewhat lower, and the minimum number of injury-free manhours needed to qualify is 1,000,000.

3. THE CERTIFICATE OF COM-MENDATION is given only for noinjury records covering a period of one or more entire calendar years and involving exposure of 200,000 to 1,000,000 manhours.

For qualifying calendar-year experience, all three types of awards are made automatically on the basis of annual reports submitted to the Council by members. The Award of Honor and the Award of Merit may also be made on special application in two types of cases.

 Where a qualifying total of injury-free manhours is accumulated in some period other than a calendar year. Where a current period of two or more years is to be used in evaluating injury rate improvement.

Publication of awards under this plan succeeds "The Honor Roll" department formerly published in the NATIONAL SAFETY NEWS. The foregoing is but a synopsis of the award plan. For a more complete and precise statement of eligibility requirements, members should refer to the plan itself. Details may be obtained by writing to Statistics Division, National Safety Council.

Awards of Honor

American Optical Co., Southbridge, Mass.

Canadian Industries, Ltd., Kingston Works.

Celanese Corporation of America, Bishop, Texas.

Chicago & North Western Ry. Co., Maintenance of Equipment and Stores. General Electric Co., Lamp Division, Bucyrus Lamp Works No. 18.

General Electric Co., Lamp Division, St. Louis Lamp Works No. 3.

General Motors Corp., Detroit, Mich. (Entire company)
General Time Corp., Seth Thomas

Clocks.
Monsanto Chemical Co., Nitro, W.

Monsanto Chemical Co., Texas Division, Texas City, Texas.

Pacific Intermountain Express Co., Oakland, Calif. (Entire company)

The Standard Oil Co., No. 1 Refinery.

Tennessee Eastman Co., Tenite Di-

vision.
United States Steel Co., U.S. Steel
Products Division, Los Angeles Plant.
Victor Chemical Works, Nashville,

Tenn.

Awards of Merit

American Smelting & Refining Co., Garfield Plant. Brookhaven National Laboratory, Upton, L.I., N.Y. (Entire company) Celanese Corporation of America, Narrows, Va.

Fieldcrest Mills, Rayon Mill, Spray, N.C.

The Flintkote Co., Pioneer Division, Los Angeles.

General Cigar Co., Division St., Kingston, Pa.

General Cigar Co., Huntington, W.

General Cigar Co., Philipsburg, Pa. General Electric Co., New York, N.Y. (Entire company)

General Electric Co., Lamp Division, Bellevue Lamp Works No. 14. General Electric Co., Lamp Division,

Cleveland Lamp Works No. 6. General Electric Co., Lamp Division,

Cleveland Welds Works No. 62.
General Electric Co., Lamp Division,
Cuyahoga Lamp Works No. 21.

General Electric Co., Lamp Division, East Cleveland Lamp Works No. 15. General Electric Co., Lamp Division, Euclid Lamp Works No. 2.

General Electric Co., Lamp Division, Mahoning Glass Works No. 53.

General Electric Co., Lamp Division, Newark Lamp Works No. 7. General Electric Co., Lamp Division,

Niles Glass Works No. 51, General Electric Co., Lamp Division,

Ohio Lamp Works No. 1. General Electric Co., Lamp Division, Trumbull Lamp Works No. 10.

General Electric Co., Lamp Division, Youngstown Lamp Works No. 5, General Shoe Corp., Gallatin No. 2,

Tennessee.

General Shoe Corp., Huntsville, Ala.

Goodyear Tire & Rubber, Sao Paulo, Brasil. Packard Motor Car Co., Detroit,

Mich. (Entire company)
Philadelphia Electric Co., Philadel-

phia, Pa. (Entire company)
Pittsburgh Plate Glass Co., Columbia
Cement Division.

National Biscuit Co., Portland, Ore. Remington Rand, Inc., Louisiana Ordnance Plant.

-To page 129



At Last, the approved Instantaneous Fire Detector!

"sees" fire with the speed of light ...

MODERN SCIENCE, with Fireye, now offers a method of detecting fire instantly, before it spreads - when every second is precious and vital.

For Fireye "sees" flame electronically the instant flame appears, and responds infallibly with the speed of light to actuate any chosen types of alarm or extinguishing systems. It is unaffected by thermal currents. changing temperatures, and location conditions that make other detectors impractical.

Furthermore Fireye polices itself as well as the premises—a failure in any part of the system is reported immediately by trouble light and audible signal. So with a Fireye system you know you have fire protection 24 hours a day!



LET US DEMONSTRATE IN YOUR OFFICE!

See for yourself why Fireye is rapidly replacing old-fashioned fire detecting devices in critical spots throughout major industries. Take only 20 minutes of your time and let us convince you that Fireye is the fastest, most modern and most remarkable flame detection system today.

FIREYE PROTECTS THE SAVANNAH RIVER ATOMIC ENERGY PLANT

Fireye has been chosen to protect vital equipment and materials at the Savannah River Atomic Energy Plant. Similarly elsewhere, Fireye Systems are protecting important critical locations wherever instantaneous detection is paramount.

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FIREYE CORPORATION, Dept. NS-6 720 Beacon Street, Boston 15, Mass.

Please supply me, without obligation, all the facts about Fireye Pratection Systems, as follows: (Check one)

LITERATURE

DEMONSTRATION

Title

National Safety News, June, 1953

Combat heat fatigue with Morton IMPREGNATED Salt Tablets



He's Wiping His Glasses With YOUR Dollars \$ \$ \$ \$ \$



Sweat begins to trickle on to his glasses. He stops . . . takes off his glasses . . . pulls out a handkerchief . . . wipes his glasses . . . replaces the handkerchief . . . puts his glasses back on . . . and finally resumes his job.

That little episode costs you money. When it's repeated hour after hour, day after day, week after week, month after month by dozens of workers, the dollar loss to you is a fantastic sum.

Stop this wiping of glasses with your dollar bills.

Use StaSafe Koolpads — the lightweight, low cost, cellulose headband that soaks up sweat and keeps those dollars in your pocket.

\$4.00 FOR A PACKAGE OF 25

STANDARD SAFETY EQUIPMENT COMPANY
232 WEST ONTARIO STREET CHICAGO 10, ILLINOIS

Green Cross News From page 44

members of the New York State Federation of Community Safety Organizations which acts as a clearing house for information and for unified program planning.

Myers Heads Council

J. Howard Myers, director of Safety and Fire Prevention for the Atlantic Refining Company, Philadelphia, recently was made chairman of the Board of Governors of the Philadelphia Safety Council, a division of the Chamber of Commerce. Myers is well known in the field of industrial safety throughout the East and has been active in the Chamber's Safety Council since its inception on a full time basis in 1936.

Cincinnati Fire Conference

A Regional Industrial Fire Prevention Conference sponsored by the Ohio Fire Brigade Association, Inc., the Cincinnati Fire Department, the Greater Cincinnati Safety Council, the Chamber of Commerce and other groups, was held in Cincinnati April 17. Two fire demonstrations featured the day's program, one a spectacular show by the local fire department life saving squad and the other a presentation staged by the plant fire brigade of Procter and Gamble at their plant drill field. The Cincinnati Fire Department lays claim to the distinction of being the "first in the nation." It was organized in 1853 so the meeting was somewhat in the nature of a Centennial observance.

Emphasis on Industry

Seven industrial sessions were featured at the recent Oklahoma Safety Conference held in Oklahoma City, May 6, 7, 8. The three-day meeting was sponsored by the Oklahoma Safety Council and cooperating organizations. The industrial programs covered plant accident investigation, carbon monoxide poisoning, the human element in safety, basic essentials of a safety program, best methods of conducting a plant safety meeting, control of toxic fumes and vapors and the importance of

training workers to lift properly.

Occupational Banquet

More than 1000 foremen, supervisors, executives and workers from Minneapolis area industry attended the 12th Annual Occupational Safety Banquet at the Vicollet Hotel on April 22. The banquet was the windup of a series of monthly meetings devoted to industrial and occupational accident problems, sponsored by the Greater Minneapolis Safety Council. Those who attend the preceding sessions are rewarded by their firms with a ticket to the dinner and the big entertainment program.

Thomas Roy Jones Honored

Robert R. Snodgrass, vicepresident of the Conference of Local Safety Organizations, NSC, and president of the Atlas Auto Finance Company, with headquarters in Atlanta, was the featured speaker at the annual meeting of the New Jersey State Safety Council on Monday evening, April 27 at the Robert Treat Hotel, Newark. Mr. Snodgrass also presented a special NSC award to the retiring president of the New Jersey Council, Thomas Roy Jones, in appreciation of his years of faithful service as head of the organization. A special "Award of Merit" was also presented to the Newark News by the New Jersey State Council, in appreciation of its continuous efforts for the safety cause. Richard V. Mulligan of New Brunswick, Vice-President of Johnson and Johnson, is the new president of the Council.

Awards to Be Given for Home Safety Programs

THE FOURTH ANNUAL home safety merit award program has been announced by the Home Safety Conference of the National Safety Council. Awards will be given on the basis of programs conducted from July 1, 1952 through June 20, 1953. Application forms may be obtained from Home Safety Division, National Safety Council.

Reports should be accompanied by illustrative material, such as newspaper clippings, bulletins,

FRESH AIR AND SAFETY right in the middle of TOXIC WORKING AREAS!

PENNSALT **PROTECTS** ITS WORKERS with



Air-Paks

Pennsalt's Safety Director writes: "We use Scott Air-Paks in our plants for worker protection on emergency jobs where men are exposed to chlorine, ammonia or acid gases. Much routine cleaning work requires the use of protective equipment for entering tank cars, rotary kilns, etc. The Scott self-contained equipment assures the wearer a source of air entirely independent of the surrounding atmosphere."

Why risk the lives of your employees and lose production in toxic areas when you can play it safe with Scott Air-Paks?

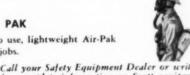
SCOTT SLING PAK

A quick, easy to use, lightweight Air-Pak for emergency jobs.



SCOTT EXTENSION HOSE ASSEMBLY

Here's safe, comfortable breathing of cool, fresh air for long periods of time, at considerable distances from air supply.





Call your Safety Equipment Dealer or write direct for complete information on Scott equipment and its use in industrial operations.

SAFETY EQUIPMENT DIVISION AVIATION

Erie Street

Canada Safety Supply Co. Toronto — Branches in prin Southern Oxygen Co. 157 Chambers Street, New programs, photographs, samples of leaflets published or distributed by the applicant.

All organizations — industrial, national, state, local, etc., are eligible.

Winners of previous awards will be judged on the basis of improvement and expansion during the year.

This is not a competition. Each application is considered on its own merits. Entries are judged by a committee of the Home Safety Conference.

Two types of awards are offered. One is for a continuing, community-wide program, the other for a single limited project. Safety Councils are eligible for honorable mention only if they report merely a single project as they are expected to report a continuing, community-wide program. One application form covers both types of programs.

All applications must be in the National Safety Council office by August 1.



Awards made by the National Safety Council for successful application of artificial respiration

GEORGE E. DOUGLAS, pumper, General Petroleum Corp., Santa Maria, Calif.—asphyxiation.

JAMES H. Ross, electrician, U. S. Naval Air Station, Seattle, Wash,—electric shock.

L. W. Addock, line foreman, Texas Electric Service Co., Odessa, Texas—suspended respiration due to convulsion.

Francis E. Capone, engineering assistant, The Pacific Telephone and Telegraph Co., San Francisco, Calif.—drowning.

Wise Owl Arrives at High School

The first high school student to qualify for membership in the famous Wise Owl Eye Safety Club is seventeen-year-old Ralph Nickey, of Milton, Pennsylvania.

Dr. Franklin M. Foote, executive director of the National Society for the Prevention of Blindness, official sponsor of the club, said that Ralph won the distinction in the machine shop of the Milton High School, when a flying tool part struck his safety glasses, which actually saved him from losing the sight of his right eye.

Wise Owl Club membership, held by more than 4,000 industrial employees throughout the nation and Canada, is restricted to those who were wearing eye protection at the time of accidents which might otherwise have caused blindness.

Dr. Foote said the young Pennsylvanian will receive his membership certificate at formal ceremonies to be conducted on May 4, in the auditorium at Milton High School. James E. O'Neil, director of industrial service for the National Society for the Prevention of Blindness, will present a Wise Owl charter to the school.

While chapters of the Wise Owl



in Canada PARMELEE LTD Forente Montreal



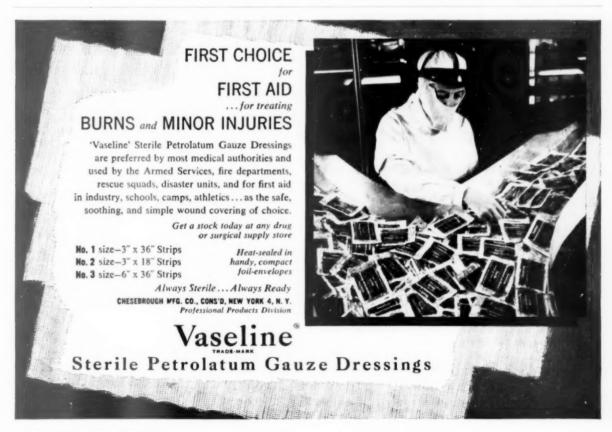
The Hood Model 7703 glove gives extra protection and extra wear in the spots that count most ... fingers, palm, thumb crotch and cuff bind. The weight of the glove, however, is held to a minimum. The cuff, designed strictly for protection,

has an exclusive type of lightweight flexible construction. Overall length is 14½".

Hood makes a complete line of industrial rubber and plastic gloves that will help keep your safety standards high.

Write today for our new illustrated catalog fea-turing the Hood Glove Guide, which shows you "how to choose the RIGHT glove for EACH job".

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These extinguishers are for oil burner fire hazards: (L to R1 Pyrene Foam and Vaporizing Liquid Pressure Types; C-O-Two Dry Chemical and Carbon Dioxide Types.

from little sparks great conflagrations grow!

Too often fires get out of control just because an extinguisher is not readily available. Time and equipment are vital. Have you got extinguishers handy to your hazards—and are they the right type for those risks? To make absolutely sure, call your local Pyrene jobber. He has the right Pyrene* equipment to cope with any fire hazard you may have—everything from hand extinguishers to automatic systems. He also carries Pyrene parts and recharges. One call to him, one purchase order, one invoice will take care of any need you may have. Write us for his address.

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Portable fire extinguishers: vaporizing liquid, soda-acid, foam, cartridge-operated, carbon dioxide, dry chemical, and pump tanks • Wheeled extinguishers: soda-acid, foam, carbon dioxide, dry chemical types • Air foam playpipes • Systems for special hazards



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Affiliated with C-O-Two Fire Equipment Co.

Club exist in hundreds of plants, none have been established previously in any school systems. Dr. Foote pointed out that there is increasing recognition of the need of more concentrated safety training in shop courses.

Monoxide Deaths In California

Carbon Monoxide poisoning killed 192 California residents during 1951 and 1952, according to reports of 55 county coroners who attributed the deaths to unvented or defective gas appliances.

Director of Industrial Relations, Paul Scharrenberg, explained that suicides were excluded from reports and figures are incomplete and make no reference to personmentally or physically disabled by carbon monoxide exposure.

The State Housing Act of California has required venting of gas appliances since 1937. In 1951 the Legislature clarified the requirement, removed one exception, and required approval by a nationally recognized testing agency for gas appliances in places of human habitation.

First Aid Charts Announced by Red Cross

Twenty-seven new First Aid Instruction Charts for Junior, Standard, and advanced First Aid Groups, have been prepared by the American National Red Cross.

Full color, pictorial, and topical charts on anatomy, safety, transportation, artificial respiration, poisonous plants and snakes, and other essential facts on familiar first aid subjects, prepared with the assistance of noted artists and educational authorities, offer something new for effective first aid training.

These charts are offered with, or without, a chart stand, and are priced accordingly. Orders may be placed through local Red Cross chapters.

A train of thought is all right if it doesn't develop into a midnight express.

The mill wheel is never turned by the water that has passed.



VISUAL AIDS IN SAFETY TRAINING

FILMS, both sound-slide and motion picture, provide two valuable components in a safety training program — motivation and instruction.

The power of films to motivate individuals is perhaps their most important quality. At the heart of every attitude are emotions of various types. A well-produced film with a wide range of subject matter, plot construction, suspense, and character development will arouse interest in the subject. Also, there is the tendency of the viewer to identify himself or herself with the characters and situations portrayed and to enjoy (suffer, too) vicariously the various emotions depicted. All these

appeals can motivate attitudes toward safety.

From the standpoint of instruction, the visualization of methods, situations and procedures provided by the films, equals or exceeds what a person could learn from watching the actual operation in the shop.

One of the difficulties encoun-

The well-planned safety program appeals to both the eye and the ear and the safety director can use a wide variety of audio-visual aids. Supplementing the Council's current list of safety films, included in this issue, this section offers suggestions for their selection and use.

tered in the use of films has been the lack of those specifically related to a particular operation or problem in a given company. This has been due in part to the economic fact that to recover the cost of production, the producers find it necessary to make the films sufficiently general in scope to be applicable to a large number of potential users.

One solution to this problem is to have an industry group sponsor a film production that will be specific for the industry. This has been done by the Edison Electric Institute, the American Gas Association, and other organizations.

Because of the difficulty of find-

TYPES OF TRAINING AIDS

1. MOTION PICTURES

Most training films are sound pictures, 16 mm. size. An increasing proportion of them are in color.

2. FILM STRIPS AND SLIDES

Film strips are rolls of still pictures, 35 mm. in size. These are projected in succession with matched sound on records or with the text in titles on the film. Films in color and black and white covering a wide variety of subjects are available on a rental or purchase basis.

3. CHARTS AND PICTURES

Diagrams, maps, cards and photographs of many types and sizes are available from numerous sources. The blackboard, one of the oldest and simplest media of visual instruction, can often be used effectively, alone or with other aids.

4. MODELS AND ACTUAL EQUIPMENT

Three dimensional objects are valuable training aids. Full-scale equipment, models with movable parts, cutaway models, and solid models are among the types used. With small-scale models a job can often be set up and demonstrated on a table top.

5. RECORDINGS

These can be obtained commercially or can be made in the plant. Types of recordings include discs, usually 16-inch running at 33½ rpm, wire and tape. They can be used in meetings, or with public address systems in plant cafeterias, and at plant gates for brief messages. Such messages should not be too long or too frequent.

ing films that apply to their problems some companies have produced excellent sound slidefilms of their own. The technique of their production is not difficult or expensive. But first of all, the producer should decide what is expected of the film and understand the nature of the medium. Some companies have also produced acceptable home-made movies with amateur talent and equipment.

Should the training program use films produced outside or those made on the job?

Both have their place. Films produced by outside agencies with professional personnel and equipment are usually better for purposes of motivation. If well chosen, they can be a great help in launching a campaign.

For instructional use, the homemade film is frequently more effective, though inferior to the professional job in technical excellence. Familiar locations, equipment and actors have a definite appeal to an employee audience but this has some drawbacks, too. The audience may become more interested in the local color than in the subject being shown, just as too clever a presentation may defeat its own ends by obscuring the message,

Motion Pictures

With sound slidefilm it is impossible to show slow motion, often a valuable feature in demonstrating an operation. This restricts the use of still pictures to subjects where motion is relatively unimportant. It also limits the use of the emotional appeal, Because the picture sequence in a film strip cannot coordinate the change in facial expression with the changes in tone, inflection and emphasis of

the recorded voice, a subject depending on this coordination is not suitable for sound-slide technique. For such subjects, motion pictures—sound or silent—are the preferred medium.

The motion picture re-enacts movement, analyzes functions, adds natural sound to the action or object, appeals to the emotions, and portrays life-like situations.

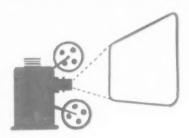
Neither motion picture nor slidefilm, however, can do the job alone. The instructor will always be the central figure in any training program. He must study the film thoroughly and work it into his plan of teaching. Results in training come basically from clear thinking, careful preparation, and personal leadership by the instructor.

Slidefilms (Film Strips)

The slidefilm is a roll of still pictures, 35 mm. wide, arranged in sequence. They are designed to present subjects where it is not necessary to show motion. They are often used to present a series of ideas or events without action. They can show close-ups or microscopic views, and also a detailed explanation of an operation or piece of equipment.

There are two types of slidefilm—sound and silent. Sound films are accompanied by a recording which explains the pictures. The silent film has titles and printed explanations on the film.

Both types of slidefilm have certain advantages. The sound film is less flexible in use but insures a more uniform presentation. It also provides an approved description and gives standard definitions. Only a brief introduction is needed since the record carries the story.



It is often desirable to provide a discussion break after the showing of the film. Another method of getting the most out of the film is to rerun it without the record, giving the instructor a chance to discuss important points.

In using a silent film, the instructor should stand near the screen to aid explanation or discussion while the film is being shown. By using a pointer he can call attention to specific items.

Silent film strips should be run slowly to allow ample time for all to read. The meeting room can be arranged to use both the film and a blackboard. When necessary, the film can be stopped to allow questions and discussion.

Slides come in two general sizes, 2" x 2" x 31/1" x 4". The 2 x 2 slide is usually a film mounted in cardboard or glass. The larger slides are mounted in glass.

Slides are usually made by local training people for special needs. They can be made by typing on cellophane through carbon; by drawing with crayon or India ink on etched glass or by contact printing from photographic negatives. They can also be made in the 2 x 2



Charles F. Alexander, manager of the National Safety Council's Industrial Department (left), Glenn F. Griffin, director of training, and Helen Krupka, of Sarra, Inc., discuss details of a scene in "A Gray Day for O'Grady" with members of the cast.

size from 35 mm, color or black and white film. For small meetings 35 mm, slides can be prepared at relatively low cost.

Flexibility is the chief advantage of slides. They may be shown singly or in a variable sequence, They can show colors in pictures or diagrams. They can be made quickly to meet changing needs in the training course.

The overhead projector is another useful instruction tool. The instructor faces his class as he talks and uses it. He maintains eye-contact with the group. The projector can be used in a lighted room.

The instructor can draw or write with a grease pencil on a piece of acetate or film positive on the light box in front of him. He can point for emphasis to an important word or phrase. As he works the image is projected through a lens onto the screen.

Length of Film

Most users of sound slidefilms agree that 20 minutes is about the maximum length of time a sound slidefilm should run. However, a script should not be padded to make it a given length. The trend is toward shorter films of 10 to 15 minutes. Some excellent films have been as short as 5 or 6 minutes but have been successful in getting the point across.

A professional narrator will read a script somewhere between



For some subjects a sound slidefilm entirely of cartoons can be effective. For others, sketches may be interspersed with photographs. Here George Dedeker, of Sarra, Inc., is working out pen and ink sketches from pencil roughs.



Production of a motion picture of professional quality requires a good script, expensive equipment, expert directing and convincing acting. Above scene is from "A Gray Day for O'Grady," by Sarra, Inc.

150 and 160 words a minute, including the pause for the "bong" signal between frames. In general, 3,000 words will time about 20 minutes. This will mean that the record would preferably cut on two sides of a 16-inch record because the larger size record gives improved quality to the recorded voice. If the film can be kept under 15 minutes, it can be recorded on one size of a 16-inch disc without a break for the record change.

Color vs. Black and White

Color has a number of advantages over black and white. Pictures in color arouse more interest than those in monochrome and have greater entertainment value. The cost, of course, is higher and there are production difficulties involved.

Since many of the pictures are taken in the field under actual conditions, arranging the lighting will take considerable time with consequent loss of production. Color film requires more light than black and white and the lighting is more critical, so skill and care are required in arranging the scene for a color picture. In actual practice outside the studio the location often is not suitable for color photography.

Another difficulty with color is that the whole negative must be used. Enlarging or cropping to bring the actual subject of the picture into the center of interest to eliminate extraneous and distracting background material may involve prohibitive expense. In many of the pictures used in slidefilms, only a small portion of the original negative is used. With black and white film it is a simple matter to enlarge and crop the negative so that only the desired portion is used.

The problems of color photography are not limited to expense. Sometimes it is difficult to find a processor who has the facilities and is willing to process the colored film in film strip form. The whole operation is much more complicated than making transparencies from vacation color shots,

Types of Appeal

The effectiveness of any film depends to a large degree upon the appeal the film makes to the group viewing it. In accident prevention, there will always be an underlying current of fear, regardless of the appeal emphasized. Nor is it easy to disassociate one appeal from another. Every film has a blend

of appeals that may be effective with different members of the audience.

The first approach might be to convince the audience that certain actions on their part are desirable. The logical appeal has a decided advantage in helping the new employee develop confidence in himself. When the reasons for doing a job a certain way are explained to him, and when he has a background of understanding as portrayed in the film, he is encouraged to develop his skill and attitude along constructive lines.

A second approach is based on the desire of each employee to become proficient in his work. This type of approach is constructive. When supplemented by a logical explanation it is probably the soundest approach for a safety film.

A good worker is a specialist in his field and may be presumed to —To page 75

EVALUATING A SOUND SLIDEFILM

- 1. Does it cover the necessary subjects?
- Does it place emphasis on the various subjects in proportion to their importance?
- 3. Does it cover the important safe practices for each subject?
- Is material well assembled and orderly?
- 5. Are the illustrative cases real? Are they typical?
- 6. Is the material convincing?
- Are language and style natural both for the men talking and for those to whom the film is directed?
- 8. Are there enough pictures for the text? Are pictures used in prefererence to printed tables where the subject can be illustrated?
- Is the dialog in every frame brief?
 If too long the audience can get tired of looking at a single picture.
- 10. Is the vehicle or device for telling the story a good one for the purpose?
- 11. Is the film free of extraneous matter—material that does not further its main purpose?
- 12. Is there a suitable summary? This should recall to mind subjects discussed in the film and place them in their proper importance.

there'll be a short wait for seats, folks...



From the very beginning, "Not Too Hot To Handle" has been booked solid anywhere from four to six weeks in advance,

And now that it has walked off with the highest award of the National Safety Council's Committee on Films, there's no telling how long the list of requests for copies may become.

We're sorry, but if you have to wait a little longer than you expected, we know you'll understand.

"Not Too Hot To Handle" is a vivid eighteenminute color demonstration of the proper use of all types of fire extinguishers. It is offered as a public service of Walter Kidde & Company, Inc. Address requests to your nearest Kidde office

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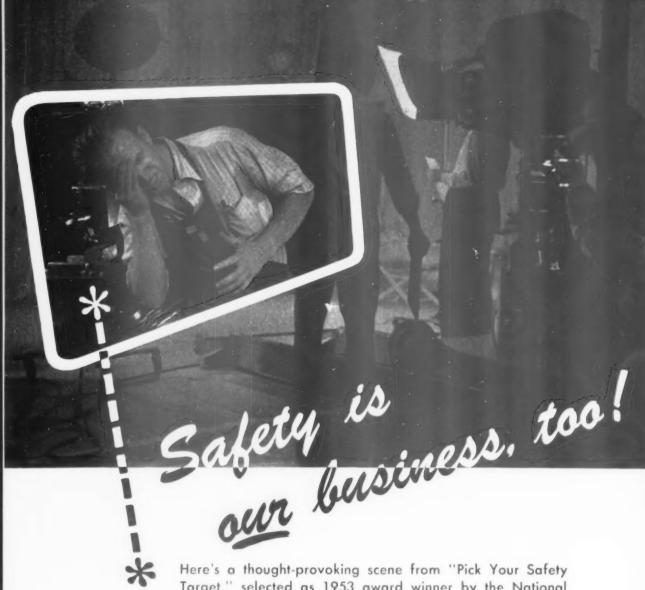
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Target," selected as 1953 award winner by the National Committee on Films for Safety.

In 14 years, we've produced more than 100 other safety films (some 15 of them, also award winners) to help industry help its workers to stay safe and sound on the job. Off the job, too.

This is no back-patting. Our purpose is to point out that perhaps this experience in creating and producing safety-training-on-film may be of value to you - to train your people, unsnarl accident problems, make everybody work safer.

May we sit down and talk it over with you?



CHICAGO

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Filmosound 202 - revolutionary 16mm optical and magnetic recording projector lets you make your own sound movies at rock-bottom cost. You can add sound to any 16mm film-change sound tracks to suit your audiences. Records and instantly plays back. Record easily, quickly while movie is being projected. Recording errors easily erased. And this Filmosound plays standard sound or silent movies.

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Producing a Sound Slidefilm

THERE are six fundamental steps in the preparation of a sound slidefilm.

The first step is to prepare an outline of the subject matter. This should list the points to be covered, in the order of their importance. It is used as a guide in writing the script and can be used frequently through the remaining steps as a reference to determine whether the film covers everything it was intended to cover, also to see that the emphasis is placed on the most important subjects.

The second step is writing the script. The accompanying illustration shows a sample script. The left hand column lists and describes the pictures and art frames which compose the film strip. The right-hand column shows the music, sound effects and voice narration to be followed when making the recording.

The third step is taking the pictures. They can be taken with almost any type of camera. Com-

mercial studios frequently use a 4 x 5 press or view camera, focusing the picture on a ground glass screen. A 35 mm. camera can also be used with fairly good results. A twin-lens reflex, taking a 2½ x 2½ picture, is another popular camera.

Lighting is all important. Photoflood lamps provide satisfactory light and with these it is possible to determine where the shadows will fall before the picture is snapped. Flash bulbs usually are not satisfactory. They place limitations on the camera exposure and cast deep shadows which may black out important details in the picture. Pictures are seldom made in the order in which they appear in the film. Before shooting starts, the script should be broken down into a shooting schedule so that all the pictures at any location or of any piece of equipment will be taken consecutively.

The fourth step is to assemble the pictures which have been taken, retouch them where necessary, and prepare the art frames—charts, cartoons, title frames, etc. If any of the photos are to contain reading matter, this should be lettered on a cellophane sheet the same size as the photograph. This is then placed over the photograph—To page 75

Sample Fage From Script of The Fire Thief, National Safety Council Sound Slidefilm

BELL

Five-gallon container with small top and a dishpan. Art in to show escaping wapers. Chief: Five callons of gascline in a deep container will not vaporize as rapidly as a pint spread out over the bottom of a dishpan, Let's suppose

BELI

Man spreading thinner over a large surface.

you're using a flammable liquid as a thinner and you spread it out over a large surface. With a very small amount of liquid but with rapid evaporation there will be a concentration of vapor and an evaluation.

RELI

Foreman stope a man from cleaning metal parts in an open container of gasoline.

DRAWING: To illustrate the vapors from a container drifting toward draft, or settling to the floor and apreading out.

Continue the drawing to show vapors reaching the furnace room, the flash, and the flash reaching back to the container.

TWO SECT as a foreman warms a welder not to work on an "empty" container. You wouldn't clean metal parts in an open container of gasoline, unless you wanted to collect on your life insurance! The room would soon fill with vapor and the first flame or spark would ignite it.

BELL

The vapor is heavier than air and will drift with any draft, or settle and spread cut on the floor, or flow down a stairway and into the basement.

BELI

It may eventually reach the furnace and flash all the way back to the container of the liquid!

JOE: It really is the vapor we have to watch out for, isn't it?

CHEF: Exactly, In fact

BELL

an "empty" container is often more danpercus than a full one. May container that has held a dangerous liquid stays full of the wapor. You can't your it out.

STEPS IN PRODUCING A SOUND SLIDEFILM

- 1. Determine need and use.
- Assemble information to be included.
- Decide general method of treatment.
- 4. Prepare a presentation covering first three points.
- Go over presentation with committees; get agreement.
- 6. Prepare first draft of script.
- Revise draft and prepare production script.
- 8. Arrange for location for photography.
- Go over location; make a breakdown for shooting.
- 10. Make photographs.
- Go over photographs with script for cropping, retouching and rearrangement.
- 12. Review pictures and script with committee.
- 13. Write final recording script.
- 14. Make recording.
- 15. Select recall frames for discussion trailer.
- Write leader's manual, directions for use, and quiz and discussion outline.



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the wealth of mature film sense, skill and judgment achieve! only through many years of actual production experience.

Producing a Slidefilm

-From page 72

when the film strip is being made so the reading matter is superimposed on the picture.

All photograph prints and art frames should be the same size, preferably 7½ x 9½ inches. This is the standard size for use in most laboratory equipment where photographs are transferred to film strips.

The fifth step is to send the photographs and art frames to some laboratory equipped to make a 35 mm. film strip negative. Copy prints are made from these.

The sixth and last step is making the recording. After the film strip is completed and checked against the script to make sure the sequence of the pictures agrees with the description or story outlined in the script, arrangements should be made with a commercial recording company or a radio station which has 33½ rpm, recording equipment, to obtain a narrator or as many voices as are called for in the script and make the recording.

If several records are to be ordered, the recording company has a plate made from the original recording for stamping duplicates.

Visual Aids

-From page 68

be interested in his job, if it is presented to him reasonably. Inherent in this appeal is recognition of the fact that to do a job well is to do it safely.

One way to use this appeal is to concentrate on character portrayals of one or two capable workers with whom those viewing the films could identify themselves. A wrong choice of character could completely nullify the effectiveness of a film. If a lack of sincerity creeps into the script or portrayal, the workers will be quick to spot it.



A third approach is the humorous type. Humor is an important means of motivating people and it has been used successfully in training films. Reasonable use in films may have several important benefits:

1. Humor can enliven the subject matter and stimulate interest.

2. Occasional illustration of an unsafe procedure, with emphasis on the humorous side is a good educational technique. It is often possible to get a point across by indirection where didactic methods are less effective.

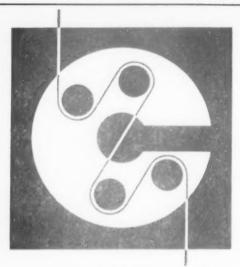
3. It provides a needed temporary re-

lief from the unpleasant aspects, such as physical and economic suffering resulting from injuries.

If the humor is handled discreetly and in the worker's idiom, it need not be interpreted as talking down to the work or making light of a serious subject.

Use of fear is often classed as a negative approach, since it is a conscious attempt to frighten employees into being careful. That approach won't work among employees who are tough and proud of it. They merely laugh at at-





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16mm MOTION PICTURE SERVICES

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tempts to scare them and develop contempt for the whole program.

More sensitive persons, however, might actually become frightened and put in a frame of mind to become involved in accidents.

ACKNOWLEDGMENT

In the preparation of this section on training aids, helpful information was obtained from the following sources:

The Film in Industrial Training, by Paul R. Ignatius, Division of research, Graduate School of Business Administration, Harvard University.

How to Make Your Own Sound Slidefilm, by Alfred L. Dowden, Transactions, 1949 National Safety Congress.

Mare Learning in Less Time, U. S. Navy Department.

Visual Aids, International Harvester Company.

Various bulletins, Eastman Kodak Company,

For Effective Slidefilm Projection

Good SHOWMANSHIP is important. The effectiveness of the showing depends largely on the thoroughness of preparation, and condition of the equipment. Make advance preparations. The following points are suggested by Eastman Kodak Company.

Choose suitable projection room. The following factors are important:

- Large enough to accommodate the expected audience.
- Darkened easily by means of draperies or shades.
- Good ventilation—this is particularly important for long showings.
- 1. Quiet as possible.
- Acoustically good. The average room is satisfactory. Furnishings and audience help. Avoid rooms with excessive reverberations.
- Electrical outlets. These should be adequate for the load, and of correct voltage and current type. Extension cords should be of adequate length and heavy enough for the load.
- Visualize locations of projector, screen and seats.
- Obtain permits, where necessary, from police or fire department.

Set up and check everything before the meeting.

 The screen. A headed screen is more brilliant over a narrower viewing angle and is suitable for general use. A matte screen is preferable for shorter rooms where

To page 80

City.



where

i÷

starts ...

This is where your film starts: in the human brain; in these three-odd pounds of nerve tissue which, mysteriously, give birth to imagination.

Unifilms believes that scripting, direction and production techniques are dead without imagination . . . and also, without imagination, the control of production costs gets out of hand. In fact, wringing the greatest amount of production from each dollar now requires more imagination than ever.

But, above all, imagination at Unifilms is concerned with audience psychology: seeing and feeling, as *they* do, their hopes, ambitions, fears.

Who have we imagined ourselves to be? Well, among others, a ten-year-old youngster dangerously playing along the Baltimore & Ohio Railroad's right-of-way . . . a trackman for the Pennsylvania . . . a service-station attendant for Sun Oil Company . . . and, for the Federal Security Agency, a prospective employer of an amputee.

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ONE, TWO, THREE GO! (Rental \$2.00)

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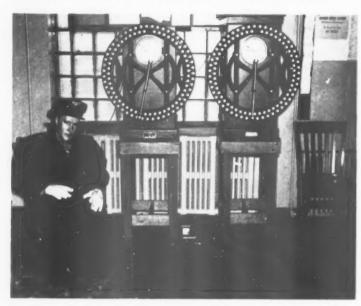
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347 Madison Avenue New York 17, N. Y.

New Team Reduces Accidents



This dummy and the Message Repeater on the floor between the time clocks play an important part in the safety program at the Griesedieck Brewery in St. Louis.

A LIFE-SIZED dummy in worker's uniform and a tape recording Message Repeater are reducing accidents at Griesedieck Brewery at St. Louis, Missouri.

On Monday mornings the dummy appears in the same place and position of the last accident. Workers gathering 'round the dummy step on a floor mat switch which sets off the message from the hidden Message Repeater, a device made by Mohawk Business Machines Corporation.

Workers enjoy the surprise element in this kind of accident recognition. They talk about the dummy and its message to other employees and the cold realization of the accident stays with them longer. "This is what helps to stop accidents," according to Robert A. Griesedieck, "when your men stop talking safety, laxness begins."

"It helps to use odd, foolish or humorous methods to promote thinking among the men. The unusual attracts first."

When there are no accidents the Message Repeater and the dummy are sometimes used. To emphasize the need for eye protection the dummy with eyes bandaged, was placed in a chair beside the time clock in one department. When the men clocked in and out they heard the message on eye injury and blindness. The men stepped on the floor mat switch several times to hear the message repeated. Later someone placed a hat on the dummy, put a cup in his hands, and a few coins and pencils appeared in the cup. Employees were taking notice of this unusual presentation of a safety message.

Separate use of the Message Repeater is sometimes as dramatic if it is hidden in a room. In the drayage department where there were several avoidable accidents due to horseplay three different messages on horseplay were turned on periodically. Some workers began telling the supervisor that they were not in on the horseplay. All became aware that management knew what was going on and the horseplay stopped.

For effective use of this device, Mr. Griesedieck has found that it is important to avoid monotony and he believes that the message should be changed daily. He also uses the Message Repeater effectively to tell the men when they have done a good job and to extend holiday and other greetings.

When the machine is in full view, employees usually try to Revere



Sound Movie Synchro-Tape

now enables you to

Make your own low cost sound movies!



5" reel Revere Sound Movie Synchro-Tape (provides sound for 800' of 8mm film or 1600' of 16mm film), Synchro-Reflector and complete instructions.

- * Make low-cost sound movies of your employees at work; closeups of factory or office routines!
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- ★ Increase the effectiveness of your "safety first" program!

You'll greatly increase the effectiveness of your "safety story" if you adapt it to your particular company's problems. Show your employees in action, your production techniques, your specific safety problems. Change sound as new situations arise. You'll add interest and subtract accidents!

All this can be done easily and inexpensively with Revere Sound Movie Synchro-Tape, using any standard 8mm or 16mm movie projector and tape recorder. No special equipment or processing is necessary. Revere Sound Movie Synchro-Tape synchronizes picture and sound perfectly . . may be erased, revised and re-used countless times. Too, recorder and projector make an easily portable sound-movie unit, for showing of sound movies, everywhere. Ask your Revere Dealer for a demonstration!

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"48" 16MM Silent Projector Simple 3-point threading and of vanced operating advantages. We coated lens, slip-over case



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built-in radio.....\$277.50 T-100 - Standard, 1-hour play \$169.50 T-500-Deluxe, 2-hour play \$179.50



\$182.50

Fire Prevention Education for Industry



This 16mm sound safety motion picture vividly portrays Fire Prevention and the importance of Employee Cooperation. It will acquaint you with the facts about how fires start, what to do about fires, how to turn in an alarm and what type of fire extinguisher should be used for each type of fire.

Price \$47.00 F. O. B. New York

Safeguard Your Hospital



A 16mm sound film produced in the interest of safety for American Hospitals.

Contents illustrate how-

- A fire program should be organized.
- Each department of the hospital should react to a fire alarm.
- Patients can be saved and spread of fire controlled.
- To prevent disaster.

Price \$65.00 F. O. B. New York

Write for Free illustrated booklet on each film.

AUDIO PRODUCTIONS, INC.

Film Center Building 630 Ninth Ave. New York 36, N. Y. figure out how it works and this can result in erased messages. Two or three different messages for each department on interchangeable cartridges allow for quick replacement.

Effective Projection

-From page 76

- the audience must be spread out wide. Correct size of screen for average conditions is 40-50 inches. The screen should be placed:
- 1. In darkest part of room where projector has sufficient throw.
- High enough for rear audience to see.
- Away from drafts to avoid movement.

Next, unpack and set up the projector:

- Where it will fill the screen, on a stand high enough to clear the audience.
- 2. Connect to electrical outlet.
- Check projector operation. Clean film gate and lenses. Oil if necessary.
- Thread start of first roll into projector, adjust for single or doubleframe film, and frame correctly, as shown in instruction manual.
- 5. Move and tilt projector until image fills screen.
- Check title and winding of all films to be shown, and make sure corresponding records are on hand.
- Secure projector cord to stand, so it cannot be pulled off. Cover all lead wires to prevent tripping.
- Focus lead title sharply on screen, then turn off projector.

Sound Effects

- Set turntable speed (of dual speed machine) at speed indicated on record. Check with stroboscopic disc.
- Insert new needle. Change needle after three or four record sides.
- Locate speaker near screen away from wall, and at eye level, Check for best sound location. A corner is sometimes best.
- After testing and adjusting volume and tone controls, turn off amplifier and turntable.

Now you are ready to put on the show. Be on the alert to correct focus, framing, volume and tone when necessary. Films and corresponding records should be clanged quickly after turning projector lamp off, with room lights on and volume low.

At the conclusion of the showing it is often desirable to review important points of the film to impress them on the audience, Questions from the audience should be encouraged.

current list of

SAFETY FILMS

JUNE 1953

THE PURPOSE of this list is to provide a compact source of information on the content, basis of availability, and source of safety films and of films in the related fields of first aid, fire prevention, and civil defense. The list includes 963 motion pictures and slidefilms, both sound and silent, for safety education within business and industry, on the farm, in homes, and on the streets and highways.

All sources known to the National Safety Council were consulted with the aim of making the list as complete as possible. A number of films, because of their age or limited safety content, are not included. We realize also that we may have overlooked films which should be included, and solicit information that will broaden the coverage of future lists.

Only a fraction of the films included have been reviewed by us, and in no case does inclusion constitute endorsement by the Council. The films selected were judged primarily on the description submitted by the producer or distributor.

Every effort was made to verify the accuracy of the information given for each film. However, there may be errors that have escaped our notice. We accordingly invite your cooperation in reporting any such misinformation, so that corrections can be published in later

Only organizations willing to distribute their films nationally are listed as sources. For information on local sources of safety films, write to your local Safety Council, State Motor Vehicle Department, State College or University, or your insurance carrier. The Council also maintains an index of both national and local sources, and will send information on specific films on request.

prepared by

NATIONAL SAFETY COUNCIL 425 N. Michigan Ave. • Chicago 11, 111.

HOW TO USE =

The films in this list are grouped under Industrial, Motor Transportation, Traffic, Home, Farm, and General Interest. Each group is broken down by subject.

if you know

the film title-

Turn to the alphabetical Index of Titles on page N-39. There you will find the number of the section in which appear the film description and source information.

if you DON'T know the title

. . . just the subject-

Go to the Table of Contents. Select the major group—Industrial, Farm, Traffic. Then find your subject section. If you cannot locate the subject there, turn to the Detailed Subject Index on page N-43.

how to locate

the source of the film-

Each film source, except the National Safety Council, has a code number. This code number in the Guide to Sources, page N-35, will tell you where to get the film. Source numbers appear at the end of each film description.

ONLY FILMS MARKED "NSC" ARE AVAILABLE THROUGH THE NATIONAL SAFETY COUNCIL

Films are available under varying terms. These terms are identified, following the source number as follows:

a-purchase and preview

c-free loan

b-rental

d-long term lease

here's how to read a typical film listing—

① FILM TITLE ② (type of film) ③ color of film ④ running time ⑤ date of production ⑥ description

3 source numbers and availability code letters.

for example-

(1) STOP FIRES, SAVE LIVES (2) (16mm sound motion) (3) b&w. (4) 19 min. (5) 1950. (6) Shows employees how industrial fires start—what to do about them—how to turn in an alarm—what types of extinguishers should be used for each type of fire. (7) 14-a, 27-c (TV) 57-ac, 126-b, 127-b

a few definitions-

b&w-black and white

col. -color

min.—minutes (running time). The number of frames are shown for silent filmstrips.

(TV)—the source following this symbol has cleared the music in the film for television use.

Printed in U.S.A.

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Of Pine Descention

PARTI



INDUSTRIAL

To facilitate reference, industrial films are grouped under two headings: "All Industries" for those that apply to all types of operations, and "Special Industries" where special operations or procedures are involved. The "All Industries" grouping is turther divided into "Management and Supervision" and

"Employee Training" films. The user should recognize that many of the employee training films can, with appropriate presentation, be used in meetings of management and supervisors. On occasion, there may also be a special use for supervisor films in the employee training program.

All Industries

Management and Supervision

SAFETY ORGANIZATION AND

DANGER, MEN WORKING (16mm sound motion) b&w. II min. The monetary cost of accidents to industry. Shows how safety programs return many times their expense in reduced accident costs. 56-ab.

DESIGN FOR SAFETY (16mm sound motion) baw. 27 min. 1952. Explains the method by which safety was integrated into the engineering courses at the University of Maryland. (TV) 139-c.

DIAGNOSIS DANGER: See Section 22.

EVERYBODY'S JOB (35mm sound slidefilm) b&w. 15 min. 1953. The operation and organization of a plant safety committee, with stress on the need for cooperation of all plant personnel in the safety program. Also, how to plan an off-the-job safety program. 103-c.

FACTORY SAFETY (16mm sound motion) baw. 10 min. 1938. General discussion of safety work in the average industrial plant—methods of conducting a safety program; planning and engineering for safety; methods of conducting safety meetings; individual worker's own part in safety work. 30-b, 47-a, 49-b, 56-ab, 104-b, 108-b, 109-b, 111-b, 120-b, 126-b, 223-b.

FOLLOW THE LEADER (Safety Management For Foremen Series): See Section 3.

INVISIBLE RED INK (35mm sound slidefilm) b&w. 20 min. 1944. An appeal to management to recognize the importance of a planned sefety program. A program is shown to be a necessity, not only for humanitarian reasons, but from a dollars and cents viewpoint as well. (TV) NSC-ac.

MEN IN DANGER: See Section 6.

MORE PROFITS, TOO (16mm sound motion) col. 22 min. 1948. Sells a safety program in a forceful manner—one business men to another. Outlines a streamlined program that may be applied to any business. (TV) 174-ac.

NOT BY CHANCE: See Section 28.

OCCUPATIONAL HEALTH PROBLEMS: See Section 6.

ORGANIZATION—Accidents Don't Happen Series (16mm sound motion) b&w. 11 min. 1947. How safety committees can lower the accident rate in industry. 59-b, 87-b, 102-abc, 126-b, 172-a, (TV) 208-b.

SAFETY INSPECTION—Basic Shop Safety Series (35mm silent slidefilm) b&w. 53 frames. 1945. The safety engineer and his job. Suggests duties of the engineer and shows him how to sell safety. Explains how to get cooperation from others and how to make daily safety inspections. 47-a.

THE SAFETY SLEUTH (16mm or 35mm sound motion) baw. 10 min. An MGM Pete Smith short showing how accidents occur, and how the causes can be ferreted out and remedied by an alert safety engineer. NSC-b, 162-ab (35 mm, for theater use only), 237-d.

YOUR GREEN CROSS IN ACTION (16mm sound motion) baw or col. 18 min. 1952. Explains workings of typical Safety Council Chapter. Shows what Green Cross accomplishes in the community. 187-a.

2

ACCIDENT RECORDS AND ANALYSIS

CAUSE AND CURE (Safety Management For Foremen Series): See Section 3.

PICK YOUR SAFETY TARGET (16mm sound motion, b&w or col. or 35mm sound slidefilm, col. only) 13 min. 1952. Foreman Bill is worried. How can he eliminate his growing accident problem? Where to start? How to start? All is explained in this clever, amusing cartoon for foremen and supervisors. (TV) NSC-ab.

SAFETY CASE HISTORIES (Human Factors In Safety Series): See Section 3.

SUPERVISOR TRAINING AND

A GRAY DAY FOR O'GRADY (16mm sound motion or 35mm sound slidefilm) baw. 15 min. 1952. A new cheir is the symbol of O'Grady's new position as assistant superintendent; but the symbol fades as a new accident report reaches his boss from O'Grady's section. A talk with his boss convinces him that it is the foreman's responsibility to stop a high accident rate and that it is good business to be safe. An amusing and timely film for supervisors. (TV) NSC-ab.

A WAY TO EFFICIENT PRODUCTION SERIES (35mm sound slidefilm) b&w. 36 min. 1953. A series of four filmstrips directed to supervisors, pointing out relationship between eccidents and loss of production. Titles: Production Efficiency; Fundamental Facts of Industrial Safety; Looking For The Cause; How To Stop Accidents. 227—Apply to source for information.

ACCIDENTS DON'T HAPPEN SERIES: See Section 17.

APPROVED BY THE UNDERWRITERS: See Section 88. THE CASE FOR COLOR (16mm sound motion) col. 22 min. 1950. Points out the advantages of proper use of color in industry. Shows how color can effect the attitudes of workers. (TV) 32-c.

COLOR CONDITIONING FOR INDUS-TRY (16mm sound motion) col. 24 min. 1946. How correct use of color in the industrial plant provides greater visibility, reduces accidents and promotes better morale. 32-c.

DANGER SLEUTHS: See Section 88.

DO THE JOB RIGHT—Stop Human Relations Accidents Series (35mm sound slide-film) b&w. 15 min. 1940. Methods a foreman should use in conducting a safety meeting to obtain the full cooperation of his men for the safety program. How to sell safety to them individually. 99-a.

HUMAN FACTORS IN SAFETY SERIES (35mm: sound slidefilm) b&w., 15-30 min. each, 1948. Series of 6 slidefilms which may be used in advanced foremen safety courses. Each deals with one aspect of the complex art of handling people. Covers worker training, keeping interest in safety alive, and winning respect and cooperation of workers. Available as a series or individually. Leader's manual included. See individual listings for detailed descriptions. Titles: The Secret Of Supervision; Teaching Safety On The Job; People Are All Alike; Everybody's Different; Teamwork For Safety; Safety Case Histories. (TV) NSC-ab.

THE SECRET OF SUPERVISION—Human Factors in Safety Series (35mm sound slide-film) b&w. 15 min. 1948. Introductory film of the series. Shows, in story form, why people will work for some supervisors, yet rebel against others. (TV) NSC-ab.

TEACHING SAFETY ON THE JOB—Human Factors in Safety Series (35mm sound slidefilm) b&w. 15 min. 1948. Shows supervisors how to prepare and give job safety instructions. The four steps of good job training illustrated are: 1. Preparation 2. Presentation 3. Application 4. Testing. (TV) NSC-ab.

-

PEOPLE ARE ALL ALIKE—Human Factors in Safety Series (35mm sound slidefilm) b&w. 15 min. 1948. Explains that all normal people have certain basic, human wants. Shows how supervisors can satisfy these wants—and by doing so, get their men to work with them. (TV) NSC-ab.

EVERYBODY'S DIFFERENT—Human Factors in Safety Series (35mm sound slidefilm) b&w. 15 min. 1948. Shows supervisors how to make allowances for individual differences—how to handle the tough guy, the show-off, the loud-mouth, the day dreamer, and the practical joker. (TV) NSC-ab.

TEAMWORK FOR SAFETY—Human Factors in Safety Series (35mm sound slidefilm) b&w. 15 min. 1948. How supervisors can make safety interesting to their men. Discusses meetings, worker suggestions, and use of safety literature. (TV) NSC-ab.

SAFETY CASE HISTORIES—Human Factors in Safety Series (35mm sound slidefilm) b&w. 30 min. 1948. A study of actual accidents that were caused by "human factors." After each case is presented, the film is stopped so the audience can discuss the accident causes, and remedies. (TV) NSC-ab.

JIM HALSEY: See Section 5.

LET'S FACE THE FACTS—Stop Human Relations Accidents Series (35mm sound slidefilm) b&w. 15 min. 1940. General approach to industrial safety. Serves as a guide to foremen. 99-a.

LET US SEE (16mm sound motion) b&w. 20 min. Fundamentals of industrial lighting. Shows the importance of proper lighting to the safety and well being of workers. 41-ab.

LIGHT IS WHAT YOU MAKE IT (16mm sound motion) col. 10 min. A Walt Disney Certoon illustrating the importance of good light. Shows how eye strains occur from insufficient light, glare, sharp contrasts and shadows. Explains how these strains can be eliminated. 122-b.

MEN WHO COME BACK (16mm sound motion) col. 25 min. 1946. A review of industrial hazards which threaten the worker's security and happiness. The hazards shown, generally are applicable to all industry. Gives an especially complete review of machine guarding. 64-abc, 109-b.

PREVENTION IS BETTER (35mm sound slidefilm) b&w. 10 min. 1946. Study of methods employed in preventing personal injuries. Deals with industrial injuries but application is broad enough to fit many other situations. (TV) 74-a.

RIGHT ON THE NOSE (16mm sound motion) b&w. 14 min. 1944. Designed to help those in charge of safety learn how to fit goggles and glasses correctly to the individual. 9-c.

SAFETY FOR SALE—Supervisory and Foreman Training Series (35mm sound slidefilm) b&w, 15 min, 1942. The responsibilities of foremen and supervisors in a safety program, 47-ac.

SAFETY IN THE SHOP (16mm sound motion) b&w. 12 min. 1944. Demonstrates that poor supervision or inadequate training may be the cause of typical shop accidents. Emphasizes the supervisor's responsibility in teaching and maintaining safe practices. 12-b, 42-ab, 45-b, 49-b, 56-ab, 66-b, 69-ab, 87-b, 109-b, 110-b, 119-b, 120-b, 125-b, 127-b, 172-a.

SAFETY MANAGEMENT FOR FOREMEN SERIES (35mm sound slidefilm) baw. 20 min. each. 1945. Consists of ten slidefilms with leader's manual-everything needed for a course in safety fundamentals. Explains how to organize a safety program, what part the foreman plays in the program and how safety increases production. Also discusses specific safety activities, such as machine guarding, safety inspections and the first aid program. Available as a series or singly. See separate listings for detailed Titles: Follow the Leader; descriptions. Cause and Cure; Guard Duty; Safety Is In Right Dress; Doctor's Orders; Brain Beats Brawn; Stop, Look and Listen; Principles and Interest; Production With Safety. (TV) NSC-ab.

BRAIN BEATS BRAWN—Safety Management for Foremen Series (35mm sound

slidefilm) b&w. 20 min. 1945. Teaches foremen the best material handling practices so they, in turn, will be able to instruct their workers. (TV) NSC-ab.

CAUSE AND CURE—Safety Management for Foremen Series (35mm sound slidefilm) baw. 20 min. 1945. Shows how to analyze an accident and to determine its basic causes. Ten unsafe acts and eight unsafe conditions illustrated. (TV) NSC-ab.

DOCTOR'S ORDERS—Safety Management for Foremen Series (35mm sound slidefilm) b&w. 20 min. 1945. The importance of regular physical examinations, prompt treatment, and written reports in all industrial first aid cases. (TV) NSC-ab.

FOLLOW THE LEADER—Safety Management for Foremen Series (35mm sound slide-film) b&w. 20 min. 1945. Designed to show foremen how to organize a safety program. Gives step-by-step description of such a program, discussing ten components for its success. (TV) NSC-ab.

GUARD DUTY—Safety Management for Foremen Series (35mm sound slidefilm) b&w. 20 min. 1945. Pictures effective guards for common power machines, and points out it is the responsibility of the foremen to see that these guards are in place. (TV) NSC-ab.

PRINCIPLES AND INTEREST—Safety Management for Foremen Series (35mm sound slidefilm) baw. 20 min. 1945. How to sell safety. It is sold like anything else. The buyer, in this case the worker, must first be interested in the product—reduction in accidents. Designed to give the supervisor an insight into ways of creating an interest in safety. (TV) NSC-ab.

PRODUCTION WITH SAFETY—Safety Management for Foremen Series (35mm sound slidefilm) b&w. 20 min. 1945. Proves it takes less time to prevent an accident than to have one. Shows that attention to safety increases production. (TV) NSC-ab.

-

RIGHT DRESS—Safety Management for Foremen Series (35mm sound slidefilm) b&w. 20 min. 1945. Illustrates common types of personal protective equipment and explains their use on the job. (TV) NSC-ab.

SAFETY IS IN ORDER—Safety Management for Foremen Series (35mm sound slide-film) b&w. 20 min. 1945. Good housekeeping, from the foreman's angle. Shows how good order saves space, time and material. (TV) NSC-ab.

STOP, LOOK AND LISTEN—Safety Management for Foremen Series (35mm sound slidefilm) b&w. 20 min. 1945. Pictures an inspection committee at work. Shows what to look for when making a plant inspection. (TV) NSC-ab.

THE SAFETY SUPERVISOR — Accidents Don't Happen Series (Iómm sound motion) bow. Il min. 1952. Presents the problems confronting the safety supervisor in dealing with both management end labor. Also makes appeal to management to cooperate with safety supervisor in the company's safety program. 59-b, 172-a.

SPEAKING OF SAFETY SERIES (35mm sound slidefilm) b&w. 13 min. each. 1950.
A set of six films prepared by Dr. Irving J. Lee, Professor of Public Speaking, School of Speech of Northwestern University. Teaches the foreman and supervisor how he can put ideas into words that will be remembered. For detailed description see individual listings. Available singly or as a set. Titles: The Power Of Speech; Butterflies In Your Stomach; The Key To Good Speaking; On Your Feet; Now You're Talking; Ring The Bell. (TV) NSC-ab.

THE POWER OF SPEECH—Speaking of Safety Series (35mm sound slidefilm) b&w. 13 min. 1950. Introduction to series. Lists occasions when foremen might be called upon to make a speech. Explains the difference between formal and working speeches, and the purpose of a speech. [TV] NSC-ab.

Speaking of Safety Series (35mm sound slidefilm) b&w. 13 min. 1950. The physiological reactions that cause stage fright. How to use it to your advantage. (TV) NSC-ab.

THE KEY TO GOOD SPEAKING—Speaking of Safety Series (35mm sound slidefilm) b&w. 13 min. 1950. Outlines four methods of preparing a talk and gives step-by-step description of the best way to prepare a "working" safety talk. (TV) NSC-ab.

-

ON YOUR FEET—Speaking of Safety Series (35mm sound slidefilm) b&w. 13 min. 1950. Explains how to stand when you get up to talk—the purpose of moving and how to do it effectively—where to look and what to do with your hands. One of the series designed to teach the safety supervisor how to speak properly. [TV] NSC-ab.

NOW YOU'RE TALKING — Speaking of Safety Series (35mm sound slidefilm) b&w. 13 min. 1950. Discusses actual speech making—how to talk, vocabulary, phrasing of ideas, attitudes. How friendliness, sincerity and enthusiasm can make your speech a success. (TV) NSC-ab.

RING THE BELL—Speaking of Safety Series (35mm sound slidefilm) b&w. 13 min. 1950. Shows how to "break the ice" and hold audience's attention. Points out the value of demonstration, films and pictures. Demonstrates how to illustrate a point with a personal touch through comparisons or a humorous story. (TV) NSC-ab.

TOMORROW IS TOO LATE (16mm sound motion or 35mm sound slidefilm) b&w. 10 min. Illustrates causes of industrial accidents and importance of safety rules. Discusses various factors which enter into proper working attitude. A general approach to industrial safety. (35mm) 49-b, (16mm) 56-ab, 97-b, 120-b.

WE'RE ON THE SPOT (16mm sound or silent motion) b&w. 10 min. Portrays common accident hazards in industrial plants. Discusses aspects of safe and healthful working conditions. Includes employerworker responsibility, foreman-workman relationship. 96-ac, 104-b.

4 REHABILITATION

ABILITY TO WORK (35mm sound slidefilm) b&w. 15 min. 1946. Physical disability alone is not a bar to a good job if remaining abilities are wisely used. Illustrates principles of selective job placement. 103-c.

AN INVESTMENT IN HUMAN WELFARE (16mm sound motion) col. 22 min. 1951. Handicapped men and women prove they can handle certain jobs as well as the average worker. (TV) 192-c.

BACK TO NORMAL (16mm sound motion) b&w. 16 min. 1944. How disabled men, women and children are able to live normal lives. Explains the responsibility for these people rests with the community, which must accept them for their abilities rather than disabilities. (TV) 20-ab, 45-b, 223-b.

COMEBACK (16mm sound motion) col. 27 min. Revised 1950. Several aspects of vocational rehabilitation. Medical care, physical therapy, vocational guidance and training discussed. 192-c.

EMPLOYING BLIND WORKERS IN IN-DUSTRY (16mm sound motion) b&w. 17 min. 1945. Shows blind workers performing complex operations on machines. Counselor is shown taking an inventory of what tasks the blind can handle, and then placing them in jobs suited to their abilities. 109-b, 172-a, 223-b.

EMPLOYING DISABLED WORKERS IN INDUSTRY (16mm sound motion) b&w. 12 min. 1946. Men and women with arms and hands missing are pictured at work in machine shops and at carpentry, welding, watchmaking, jewelry design, sewing and office work. Shows how well they compare in production, absenteeism and accident rates with their co-workers. 109-b, 172-a, 273-b.

ESTABLISHING WORKING RELATIONS FOR THE DISABLED WORKER (16mm sound motion) b&w. 14 min. 1945. A supervisor is shown preparing a group of workers for the arrival of a veteran who has lost a hand. 109-b, 172-a, 223-b.

INSTRUCTING DISABLED WORKERS ON THE JOB (16mm sound motion) b&w. 14 min. 1946. Dramatizes shop foreman's need of a knowledge of rehabilitation procedures. Shows how handicapped can become good workers through supervisor's understanding of their problem. 172-a, 273-b.

INSTRUCTING THE BLIND WORKER ON THE JOB (16mm sound motion) b&w. 17 min. 1945. Methods to use in teaching the blind to operate machines. 109-b, 172-a, 223-b.

LIFE BEGINS AGAIN (16mm sound motion) b&w. 20 min. 1942. Deals with problems encountered after injured workers are back on the job after hospitalization and medical care are completed. Emphasizes rehabilitation is both a mental and physical process. (TV) 20-ab, 45-b, 109-b.

NO HELP WANTED (16mm sound motion) b&w. 18 min. 1946. Documents progress of physically handicapped veterans of World War II from the beginning of rehabilitation to resumption of normal activity in industrial civilian life. 51-c, 117-b.

RETURN TO ACTION (16mm sound motion) b&w. 19 min. 1947. A British Ministry of Labor film dealing with post-war rehabilitation of the disabled. Illustrates how disabled men and women are helped to useful employment through the cooperation of various agencies. (TV) 20-ab, 223-b.

WINNING AGAINST ODDS (16mm sound motion) b&w. 12 min. 1943. Deals with employment of handicapped at Caterpillar Tractor Co. Shows how these workers succeed in jobs fitted to their abilities. 23-c, 118-b.

Employee Training

PSYCHOLOGY OF SAFETY

AN ACCIDENT HAPPENS TO SAM: See Section 6.

APRIL FOOL (35mm sound slidefilm) b&w. 15 min. 1944. How industrial workers can avoid both on-the-job and off-the-job accidents by developing the proper attitude toward safety. 103-c.

BANDAGE BAIT (35mm sound motion) baw. 9 min. 1951. Fresents the unsafe acts in industry which cause a great percentage of accidents to workers. Shows how proper attitude plays a big part in safety. Humorous treatment throughout. For theatrical use only. 162-ab.

CAUSE AND EFFECT (35mm sound slidefilm) b&w. 15 min. Revised 1946. Demonstrates that accidents, at work and away from work, are the result of controllable causes. 103-c. CLOSE SHAVES (35mm sound slidefilm) b&w. 15 min. 1951. Shows that near-accidents, both on and off the job, should be warnings to be careful and to develop better safety attitudes. 103-c.

IT'S NO JOKE (35mm sound slidefilm) b&w. 15 min. 1952. Illustrates the danger of horseplay in industry and, through a story, reviews some typical industrial horseplay accidents. 103-c.

JIM HALSEY (35mm sound slidefilm) b&w, 3 min. 1949. The story of a man who violates safety regulations after he has been warned that a repetition would result in dismissal. Jim Halsey risks a serious accident to remove a jam in a scrap-breaking machine without first stopping it. Jim has been a hard worker with the company for over 20 years. What can his foreman do? 189-a.

KEEP YOUR HEAD (35mm sound slidefilm) b&w. 15 min. 1942. Deals with the danger of uncontrolled emotion. Shows the relationship between emotional stability and safety. 103-c.

LEARN AND LIVE: See Section 17.

MOSTLY PERSONAL (35mm sound slidefilm) b&w. 15 min. 1950. Shows personal attitudes to be the underlying cause of most accidents and injuries in handling material in industry. 103-c.

ON POST SAFETY (16mm sound motion) b&w. 22 min. 1952. Designed to improve on-duty accident prevention attitudes in the Armed Forces. 172-ac.

PARTNERS IN PRODUCTION (16mm sound motion) col. 17 min. 1946. Uses actual shop operations to show that cooperation is needed in plant safety program. Emphasizes importance of every worker looking out for himself and others to prevent accidents and keep up production. 2-c.

PERSONAL SIDE OF SAFETY SERIES (16mm sound motion or 35mm sound slide-film) b&w. 15 min. each. 1951. Series of five films. Sequel to popular "Human Factors in Safety," but designed for workers. Shows men how to know their jobs, environment, themselves—so they will know that safety is within their personal control. Available as a series or individually. Leader's Manuel included. See individual listings for detailed description. Titles: Safety Record, Two Steps to Safety, Let Habit Help, Get A Grip On Yourself, Decide to Be Safe. (TV) NSC-ab.

SAFETY RECORD—Personal Side of Safety Series (16mm sound motion or 35mm sound slidefilm) b&w. 15 min. 1951. Designed to show workers they are playing a winner when they play safety—that it's modern, popular and successful. Company records are illustrated to prove safety a success and to show that safety is accomplished by the individual. (TV) NSC-ab.

TWO STEPS TO SAFETY—Personal Side of Safety Series (16mm sound motion or 35mm sound slidefilm) b&w. 15 min. 1951. Safety is the result of knowledge—knowing your job and your environment—and knowing yourself! Drives home the effect of knowledge on personal safety. (TV) NSC-ab.

LET HABIT HELP—Personal Side of Safety Series (16mm sound motion or 35mm sound slidefilm) b&w. 15 min. 1951. Safety lies in the habits we have—good habits or dangerous ones. Shows the worker how to analyze himself, how to build up habits that lead to safety. (TV) NSC-ab.

GET A GRIP ON YOURSELF—Personal Side of Safety Series (16mm sound motion or 35mm sound slidefilm) b&w. 15 min. 1951. Points out that we must establish controls so emotions don't get the upper hand—shows how to recognize emotions, what causes them, and suggests methods of control. (TV) NSC-ab.

DECIDE TO BE SAFE—Personal Side of Safety Series (16mm sound motion or 35mm sound slidefilm) b&w. 15 min. 1951. Proves

safety comes with decision. We must decide to be safe and begin to build up a bank of safety knowledge so we will know what to do in any situation. (TV) NSC-ab.

RING DOWN THE CURTAIN: See Section 26.

SAFE AS YOU THINK (16mm sound motion) b&w. 27 min. 1950. Dramatic attack on the belief, "You can't prevent accidents; they just happen!" Descriptions of the General Motors Safety Program are interwoven in the story, 39-ac, 137-c, 223-b.

STAY ON THE BEAM (35mm sound slidefilm) b&w. 14 min. 1942. Every plant has certain workers who unconsciously sabotage production effort. A mental hygiene expert points out the absurdities in some attitudes, then discusses good morale, safe practices, and good mental health. 25-a.

THINK SAFETY, LIVE SAFELY (35mm sound slidefilm) b&w. 15 min. 1946. Relates causes of accidents in industry to personal behavior. Stresses need for proper attitude in workers. 103-c.

TWO FUTURES (35mm sound slidefilm) baw. 15 min. 1950. The dangers inherent in wrong attitudes towards safe practices. Why self-interest demands proper attitude. 103-c.

WRONG WAY BUTCH (16mm sound motion) b&w. 12 min. 1950. A 'Pete Smith Specialty' on unsafe working habits in industry. 'Butch' illustrates eight lessons on how not to work. Humorous treatment throughout. (TV) 139-c.

G HEALTH, HYGIENE, AND FIRST AID

AID FOR INJURIES: FAINTING: BURNS

—Basic Shop Safety Series (35mm silent slidefilm) b&w. 94 frames. 1945. First aid treatment for minor injuries. Eye injuries, fainting, burns, cuts, bruises, slivers, and puncture wounds discussed. 47-a.

AN ACCIDENT HAPPENS TO SAM (16mm sound motion or 35mm sound slidefilm) b&w. 15 min. 1952. Emphasizes the necessity of prompt first aid if injured. Also destroys the theory, "Accidents just happen!" Sam, helping the industrial nurse in first aid, learns the truth about accidents. They don't just happen, they are caused! [TV] NSC-ab.

ARTIFICIAL RESPIRATION (16mm sound motion) b&w. 10 min. 1952. Demonstrates two methods of artificial respiration adopted as official by the U. S. Coast Guard. Shows the back-pressure arm-lift method, and the back-pressure hip-lift method. (TV) 228-c.

ARTIFICIAL RESPIRATION (16mm sound motion) baw. 6 min. 1952. Describes and illustrates the new back-pressure arm-lift method of artificial respiration for victims of drowning and asphyxiation. Suitable for high school students and adults. (TV) 12-b. 234-a.

ARTIFICIAL RESPIRATION (16mm silent motion) baw. 10 min. Illustrates proper technique for applying artificial respiration to victims of drowning and shock. 6-ab.

ARTIFICIAL RESPIRATION: BACK-PRESSURE ARM-LIFT METHOD (16mm sound motion) b&w. 6 min. 1952. Demonstration of the new back-pressure arm-lift methods by experts from Springfield College. Method has been adopted by most safety organizations to supersede all others. (TV) 12-ab, 56-ab, 105-b, 106-b, 109-b, 122-b, [TV] 181-a.

BASIC FIRST AID SERIES (35mm sound or silent slidefilm) b&w. 5-10 min. each. Series of 19 slidefilms designed to teach proper methods of treating emergency cases. Available singly or as a set. 78-a.

BEFORE THE DOCTOR COMES (16mm sound or silent motion) b&w. 37 min. 1943. Four reel presentation covering following subjects: Part I. Aid for bleeding; shock; use of stimulants; need for warmth; position of body. Part II. Artificial respiration and care of burns. Part III. First aid for leg fractures, using half-ring and approved splints. Part IV. Application of Murray-Jones and approved splints to arm fractures; transportation of victim. 106-b, 109-b.

BILLION DOLLAR MALADY: THE COM-MON COLD (16mm sound motion) b&w. 14 min. 1952. The prevalence and cost to workers and employers of the common cold. How to safeguard against it. (TV) 19-ab.

THE BODY: PART 1—First Aid Training Series (35mm sound or silent slidefilm) col. 10 min. 1942. Muscles, tendons, skin, blood, skeleton, head, trunk, upper and lower limbs defined and illustrated. 47-a.

THE BODY: PART II—First Aid Training Series (35mm sound or silent slidefilm) col. II min. 1942. The internal parts of the body and vital organs defined and illustrated. 47-a.

CAPITAL STORY (16mm sound motion) baw. 20 min. Industrial hygiene chemists and laboratory workers investigate and solve serious threats to worker's health. From the series, "This is America," produced by the Office of War Information. 91-ac.

CHECKING FOR INJURIES (16mm sound motion) b&w. 20 min. 1952. Outlines steps to be taken by first aiders in examining an accident victim. 172-a, (TV) 219-c.

COMMON EMERGENCIES — First Aid Training Series (35mm sound or silent slide-film) baw. 12 min. 1942. First aid treatment for most of the common injuries and illnesses which occur under normal conditions. 24-c, 47-a.

DANGER IS YOUR COMPANION (16mm sound motion) b&w. 18 min. 1947. Demonstrates the importance of a working knowledge of first aid in meeting unexpected emergencies when they arise. 117-b, 137-c, 172-a, (TV) 219-c.

DOCTOR IN INDUSTRY (16mm sound motion) baw. 60 min. 1946. Story of pioneering in industrial medicine, with a strong documentary flavor. Dramatic conflict is used to sharpen the educational force. 39-c, 106-b.

DOCTOR'S ORDERS (Safety Management for Foremen Series): See Section 3.

DRESSINGS AND BANDAGES: PARTS I AND II—First Aid Training Series (35mm sound or silent slidefilms) &&w., Part 1, II min; Part 2, I3 min. 1942. A set of two slidefilms demonstrating how to make and apply bandages to various wounds, and the materials to use for different wounds. Part 1, is an introduction to the subject, Part 2, a more advanced study. May be obtained singly or as a set. 24-c, 47-a.

DRESSINGS AND BANDAGES USED IN FIRST AID—First Aid Series (35mm silent slidefilm) b&w. 43 frames. 1952. General discussion of the function of dressings and bandages. Attention given to six oftenused bandages. Demonstrates how to apply the proper bendage on typical occasions. 102-ab, (TV) 208-b.

ESSENTIALS OF FIRST AID (16mm sound motion) b&w. 30 min. 1942. First aid for naval and maritime personnel. Describes some of the medical facilities afloat, methods of transporting and protecting injured men, rescuing and reviving men overcome by smoke, contents of Navy first aid kits, and steps in the examination and treatment of the wounded. 3-b, 24-c, 109-b.

THE EYES AND THEIR CARE (16mm sound motion or 35mm sound or silent slide-film) baw. II min. 1941. Physiology and hygiene of the eye. Field of vision, night blindness, double vision, near-sightedness, far-sightedness, astigmatism, infections, removel of foreign bodies, and methods of protecting the eye are illustrated. 12-b, [TV] 37-ab, 106-b, 113-b, 116-b, 117-b, 122-b, 137-b.

EYES ON THE JOB (35mm sound slidefilm) b&w. 20 min. 1940. Cartoon in rhyme, featuring "Sammy Squint," who points out need for better vision in industry as a direct aid to better work, fewer accidents, less loss of time and a better attitude toward the job. (TV) 16-ac.

FIFTEEN MINUTES TO GO (35mm sound slidefilm) b&w. 15 min. 1947. Dramatizes the extreme risk involved in delaying or neglecting first aid for all injuries. Convinces workers that it's smart to get first aid immediately for even the smallest hand or finger cut, or harmless-appearing burn. (TV) NSC-ab.

FIRST AID (16mm sound motion) b&w. II min. 1941. Points out importance of knowledge of first aid. Gives proper procedures for caring for injured until medical aid arrives. Shows techniques of treatment for shock, bleeding, and fractures. 37-ab, 114-b, 117-b, 122-b.

FIRST AID (35mm sound slidefilm) b&w. 15 min. Revised 1950. First aid procedures advocated by American Red Cross. Treatments are demonstrated. 69-ab, 103-c.

FIRST AID: ARTIFICIAL RESPIRATION (35mm sound slidefilm) b&w. 8 min. 1942. How to apply prone pressure method of artificial respiration to cases of drowning and electrocution. 24-c.

FIRST AID: CARE OF MINOR WOUNDS [16mm silent motion] b&w. 4 min. 1941. Emphasizes importance of immediate first aid for minor wounds. Shows how to clean, sterilize and bandage scratches and cuts. [TV] 37-ab, 109-b.

FIRST AID: CARRYING THE INJURED (16mm silent motion) b&w. 4 min. 1941. Shows methods of making stretchers when none are available and demonstrates proper carrying techniques. Stresses importance of not moving victim unless absolutely necessary. (TV) 37-ab, 109-b.

FIRST AID: CONTROL OF BLEEDING [16mm silent motion] b&w. 10 min. 1941. Gives five major pressure points for control of arterial and venous bleeding. Illustrates methods of applying tourniquets. [TV] 37-ab. 109-b. 124-b.

FIRST AID FOR BLEEDING AND SHOCK (35mm silent slidefilm) b&w. 41 frames. 1952. How to stop bleeding: where to locate pressure points when digital pressure is applied; how to recognize and deal with shock. 102-a, (TV) 208-b.

FIRST AID FOR BONE, MUSCLE AND JOINT INJURIES—First Aid Series (35mm silent slidefilm) b&w. 51 frames. 1952. Defines simple and compound fractures and gives treatment for each. Discusses fractures of jaw, collarbone, ribs, spine, pelvis, hip, thigh, limbs. Also demonstrates aid for dislocations, sprains, and strains. 102-e, (TV) 208-b.

FIRST AID FOR INJURIES CAUSED BY HEAT AND COLD—First Aid Series (35mm silent slidefilm) b&w. 37 frames. 1952. Approved first aid procedures for treating simple injuries caused by extreme heat or cold. 102-a, (TV) 208-b.

FIRST AID FOR WOUNDS—First Aid Series (35mm silent slidefilm) b&w. 40 frames. 1952. Illustrates first aid for several kinds of wounds. Gives special attention to first aid for snake bites and eye injuries. 102-a, (TV) 208-b.

FIRST AID FOR WOUNDS AND FRACTURES (16mm or 35mm sound motion) b&w. 10 min. 1941. Basic rules of first aid for minor and major wounds, and most fracture. cases. (TV) 37-ab, 106-b, 109-b, (TV) 110-b, 121-b, 125-b.

FIRST AID IN COMMON EMERGEN-CIES—First Aid Series (35mm silent slidefilm) b&w. 40 frames. 1952. First aid procedures for many of the common emergencies found in everyday living. 102-e, (TV) 208-b.

FIRST AID IN THE PREVENTION OF SHOCK (16mm sound motion) b&w. 26 min. 1950. How to recognize signs of shock. Proper and improper methods of handling injured to avoid this danger. 122-b, 172-a.

FIRST AID: INJURIES AND ACCIDENTS (16mm sound motion) b&w. 26 min. U. S. Army first aid for various types of accidents and injuries. 118-b.

FIRST AID ON THE SPOT (16mm sound motion) b&w. 11 min. 1951. Approved American Red Cross first aid techniques for treatment of wounds, burns, shock, fractures, and bleeding. Includes demonstrations of artificial respiration. (TV) 37-ab, 109-b, 110-b, 119-b.

FIRST AID TF 1571, 1581 (16mm sound motion) b&w. 25-33 min. 1951. Part I. Shows methods of treating major wounds, fractures, and burns. Part II. Methods of treating everyday emergencies, such as foreign objects in eye, poisoning, poison ivy, burns, scratches, and fainting. 172-a.

FIRST AID TRAINING SERIES (35mm sound or silent slidefilm) b&w., 2 in col. 6-14 min. 1942. Consists of seventeen slidefilms, two in color, together with instructor's manual, which give most of the practical methods of treating accident victims. Available as a series or singly. See separate listings for detailed descriptions. Titles: The Purpose of First Aid; The Body, Part I (col.); The Body, Part II (col.); Shock; Unconsciousness; Common Emergencies; Minor Injuries; Wounds, Part II; Dressings and Bandages, Part II; Poisson; Fractures: Types; Fractures: Treatment; Fractures: Splints; Moving the Injured: Stretchers; Moving The Injured: Carrying. 47-a.

FIRST STEPS IN FIRST AID (16mm sound motion) baw. 30 min. 1942. Gives basic information contained in standard first aid courses for beginners. 89-c, 106-b, 109-b, (TV) 110-b, 1111-b, 112-b, 118-b, 120-b, 124-b, 223-b.

FOOD KEEPS YOU FIT (35mm sound slidefilm) b&w. 15 min. 1942. "Accident Joe" is continually involved in accidents at work because of improper diet. Gives nine reasons why selection of nutritious food is self-insurance against accidents. 25-a.

FRACTURES: SPLINTS—First Aid Training Series (35mm sound or silent slidefilm) b&w. 14 min. 1942. How to make fixed traction splints. Illustrates different types of splints. 47-a.

FRACTURES: TREATMENT—First Aid Training Series (35mm sound or silent slidefilm) b&w. 13 min. 1942. Gives instructions for treatment of complicated fractures. Outlines five general rules to follow. 24-c, 47-a.

FRACTURES: TYPES—First Aid Training Series (35mm sound or silent slidefilm) b&w. 12 min. 1942. Two principal types of fractures shown. Gives general first aid treatment for fracture of leg, upper arm, elbow, finger, and collar bone. 24-c, 47-a.

HANDLE WITH CARE (16mm sound motion) col. 14 min. 1947. How improper first aid can make injuries more serious. Specific "do's" and "dont's" for handling accident victims in an emergency. (TV) 2-c.

HELP WANTED [16mm sound motion] b&w. 31 min. 1942. Application of various first aid techniques in a first aid station. For beginners in first aid. 6-bc, 12-c, 27-bc, 87-b, 89-c, 91-c, 94-c, 105-b, 106-b, 109-b, 110-b, 111-b, 112-b, 114-b, 124-b.

HELP YOURSELF BEAT THE HEAT [16mm sound motion] col. 12 min. 1947. Made to teach best methods of combatting heat sickness in hot metal operations of the Carnegie-Illinois Steel Corporation. Stresses good health habits, proper diet, and use of salt and destrose. 92-c.

HOW TO AVOID MUSCLE STRAIN: See Section 9.

HOW TO CATCH A COLD (16mm sound motion) baw or col. 10 min. 1951. How colds are spread. Why a day in bed may protect others. Also points out that a cold may be the symptom of a more serious illness. Cartoon treatment used. [TV] 12-c.

THE HUMAN BODY IN FIRST AID (16mm sound motion) baw. 20 min. 1945. Presents information on the human body necessary to a basic knowledge of first aid. Uses anatomical and human models, dissecting laboratory, animation and other resources to present the subject. 106-b.

KEEP OUT INFECTION (35mm sound slidefilm) b&w. 15 min. Revised 1951. Deals primarily with the sources and prevention of infections. One section is devoted to care of injuries. 103-c.

KEEPING FIT (16mm sound motion) b&w. 10 min. Simple rules of health and hygiene for the worker and his family. 106-b, 117-b.

MEN IN DANGER (16mm sound motion) b&w. 19 min. 1941. A general discussion of workers' health and the social legislation affecting their safety. Deals with serious types of industrial accidents and some of the major occupational diseases. 45-b, 112-b, 223-b.

MINOR INJURIES — First Aid Training Series (35mm sound or silent slidefilm) b&w. 14 min. 1942. Methods used in treating minor everyday injuries. General instruction film for first aid trainees. 24-c, 47-a.

MINUTES THAT COUNT (16mm sound motion) col. 60 min. 1943. A comprehensive approach to several aspects of first aid: 1. how to stop arterial bleeding; 2 dressing open wounds; 3. artificial respiration; fractures and dislocations. 152-a.

MOVING THE INJURED: CARRYING— First Aid Training Series (35mm sound or silent slidefilm) b&w. 10 min. 1942. Improvising a stretcher; how to carry an injured person when a stretcher can't be made quickly. 47-a.

MOVING THE INJURED: STRETCHERS
—First Aid Training Series. (35mm sound or silent slidefilm) b&w. 9 min. 1942. Demonstrates how to move the injured on various types of stretchers. 47-a.

OCCUPATIONAL HEALTH PROBLEMS (16mm sound motion) col. 42 min. 1947. Illustrates an industrial physician's problems in educating management to take greater interest in their employee's health. Shows Brooklyn Industrial Health Committee's plan working in cooperation with management and the medical profession. Also discusses the most common industrial health problems. 52-ab.

ONCE IN A LIFETIME: See Section 24.

OPEN FOR INFECTION (35mm sound slidefilm) b&w. 25 min. 1946. Warns against neglecting even the smallest wound and stresses the importance of prompt first aid treatment for such wounds. 137-c, 201-c.

PENALTY OF NEGLECT (16mm silent motion) b&w. 15 min. Depicts effect of failure to get prompt first aid when injured. Many scenes taken in operating room and show actual operation on hand which became infected. 201-c.

PERSONNEL DAMAGE CONTROL: AR-TIFICIAL RESPIRATION (16mm sound motion) col. 10 min. 1943. Demonstrations of artificial respiration for counteracting the effects of drowning, asphysiation or electrical shock. Prone-pressure method used. 24-c, 109-b, 154-a.

PERSONNEL DAMAGE CONTROL: FRACTURES (16mm sound motion) b&w. 11 min. Diagrams skeletal structure, then shows bone movement resulting from muscle tension. Describes simple and compound fractures and illustrates first aid techniques. 109-b, 154-a.

PERSONNEL DAMAGE CONTROL: FUNDAMENTALS OF FIRST AID (16mm sound motion) baw. 11 min. Shows first aid facilities on ships. Illustrates treatment for victims of bleeding, suffocation or shock. Discusses methods of lifting and carrying injured. Reviews principles of first aid. 109-b, 154-a.

PERSONNEL DAMAGE CONTROL:
HEAT EXHAUSTION, SUNSTROKE,
BURNS (I6mm sound motion) b&w. 8 min.
Explains and illustrates causes and treatment
of heat exhaustion. Pictures victims suffering sunstroke and burns, and emphasizes
need for immediate treatment and avoidance
of shock. 109-b, 154-a.

PERSONNEL DAMAGE CONTROL: WOUNDS (16mm sound motion) b&w.
10 min. Explains blood pessage through body and shows five major pressure points for digital pressure. Emphasizes need for immediate stoppage of bleeding and gives recommended treatment for various kinds of bleeding. 109-b, 154-a.

POISON—First Aid Training Series (35mm sound or silent slidefilm) b&w. 7 min. 1942. First aid treatment for drug, food and carbon monoxide poisoning. 47-a.

THE PURPOSE OF FIRST AID—First Aid Training Series (35mm sound or silent slide-film) b&w. 8 min. 1942. A preview of the course, giving some reasons for need of a knowledge of first aid. Some applications of first aid shown. 47-a.

SAFE DRINKING WATER FROM SMALL WATER SUPPLIES: See Section 82.

SAVE A DAY (16mm sound motion) b&w. 10 min. 1942. Effective industrial hygiene illustrated. Emphasizes the importance of keeping men on the job by removing industrial health hazards. State industrial hygiene engineers are shown in action, taking dust counts in a factory, and changing a miner's drill to prevent silicosis. 91-ac, 109-b.

SAVE THIS LIFE (16mm sound motion) baw, 5 min. 1952. Describes in detail the new back-pressure arm-lift method of artificial respiration used by the Red Cross and most rescue units. 17-ab.

SAVING LIVES: See Section 87.

SHOCK—First Aid Training Series (35mm sound or silent slidefilm) b&w. 6 min. 1942. How to recognize and treat victims of shock. 24-c, 47-a.

STOP SILICOSIS (16mm sound motion) b&w. 10 min. 1940. The danger of silicosis and other dust hazards in industrial plants. Gives detailed information on how to eliminate these hazards. 106-b, 107-b, 108-b, 109-b.

TEMPERATURE, PULSE AND RESPIRA-TION (16mm sound motion) b&w. 15 min. 1943. How to take the pulse, temperature and respiration count of an accident victim. 109-b, 172-a.

TRANSPORTATION OF THE INJURED— First Aid Series (35mm silent slidefilm) b&w. 34 frames. 1952. Demonstrates proper technique for transporting injured when such transportation is essential. Describes in detail several methods generally used. 102-a, (TV) 208-b. TREATMENT FOR BLEEDING: SHOCK: PREVENTING INFECTION — Basic Shop Safety Series (35mm silent slidefilm) b&w. 101 frames. 1944. First aid procedures for severe bleeding, shock, and for preventing infection. Also illustrates methods of treating fractures. 47-a.

UNCONSCIOUSNESS—First Aid Training Series (35mm sound or silent slidefilm) b&w. 13 min. 1942. First aid in hysteria, fainting, heat exhaustion, and the various types of shock. 24-c. 47-a.

USE OF ARTIFICIAL RESPIRATION IN FIRST AID—First Aid Series (35mm silent slidefilm) b&w. 38 frames. 1952. Explains how and when to use new back-pressure arm-lift method of artificial respiration. 102-a, (TV) 208-b.

WOUNDS: PART I—First Aid Training Series (35mm sound or silent slidefilm) b&w. 9 min. 1942. Shows first aid measures for stoppage of bleeding. Describes ways of preventing infection. 47-a.

WOUNDS: PART II—First Aid Training Series (35mm sound or silent slidefilm) b&w, 10 min, 1942. How to treat abrasions, cuts, animal and snake bites. 47-a.

YOUR DOCTOR AND YOU (35mm sound slidefilm) b&w. 15 min. 1945. Shows importance of cooperating with doctor and carrying out his instructions by picturing occupational accidents resulting from lack of such cooperation. 103-c.

YOUR FIRST DEFENSE (35mm sound slidefilm) b&w. 15 min. 1944. Discusses skin as protection for body. Shows care necessary for avoiding occupational dermatoses. 103-c.

YOUR RESPONSIBILITY IN FIRST AID
—First Aid Series (35mm silent slidefilm)
b&w. 38 frames. 1952. Nine principles of
first aid for the beginner. 102-a, (TV)
208-b.

PERSONAL PROTECTIVE EQUIPMENT

THE AIR WE BREATHE [16mm sound motion] baw. 26 min. 1946. The why and how of respirator protection for workers exposed to dust, gas and other air contaminants. Historical development, laboratory testing, maintenance, and use of respirators explained and demonstrated. [TV] 54-ac.

BREATH OF LIFE (16mm sound motion) col., 15 min. or b&w., 7 min. 1949. The use of breathing equipment by firemen and industrial workers in smoke and toxic atmospheres. (TV) 202-c.

DON'T DROP YOUR GUARD: See Section 9.

EASY ON THE EYES (16mm sound motion or 35mm sound slidefilm) b&w. 20 min. 1749. Reminds workers to be conscious of eye hazards. Shows various types of glasses for specific jobs and stresses three rules: proper fitting, correct protection, keep them clean. (TV) NSC-ab.

EYE PROTECTION — Basic Shop Safety Series (35mm silent slidefilm) b&w. 82 frames. 1945. Selection, adjustment and care of chipper's goggles. Use of welder's goggles, helmets and hand shield. 47-a. THE EYES AND THEIR CARE: See Section 6.

THE EYES HAVE IT (35mm sound motion or 35mm sound slidefilm) b&w. 20 min. An appeal for the use of goggles in industry. Their value demonstrated by case histories of eye accidents. (sound motion) 61-a, (TV) 72-a.

IT DOESN'T HAVE TO HAPPEN: See Section 28.

THE LONG NIGHT (35mm sound slidefilm) b&w. 15 min. 1953. A man, temporarily blinded by an industrial accident, awaits the outcome of an operation to save his sight. Shows why protective equipment is needed when eye hazards exist in industry. 103-c.

MY EYE DEAL (35mm sound slidefilm) col. 10 min. 1946. Herkimer learns the value of wearing sefety goggles. A cartoon in story form. (TV) NSC-ab.

NO ACCIDENTS (16mm sound motion) baw. 10 min. Shows importance of keeping floors and machines free of shavings and litter. Discusses safe clothing, protection of hair for women, safety shoes and goggles. 108-b, 120-b, 122-b.

ONE OUNCE OF SAFETY (16mm sound motion) b&w. 17 min. 1950. Shows the advantage of wearing safety shoes on the job. Construction of safety shoes also illustrated. (TV) 167-ac.

PROTECTING EYES AT WORK (35mm silent slidefilm) col. 47 frames. 1952. Precautions to be taken when working with various tools and machines. Also illustrates proper use of goggles. (TV) 67-a.

RIGHT DRESS (Safety Management for Foremen Series): See Section 3.

RIGHT ON THE NOSE: See Section 3.

SAFE CLOTHING—Accidents Don't Happen Series (16mm sound motion) b&w. 8 min. 1949. Humorous dramatization of the importance of wearing right clothing for the job. Shows proper dress for welders, moulders, and other male and female workers. 19-a, 59-b, 102-ab, 172-a, (TV) 208-b.

TO LIVE IN DARKNESS (16mm sound motion) b&w. 13 min. 1948. Story of three men who lost their eyesight through carelessness. Shows importance of proper eye protection when working under hazardous conditions. 42-b, 69-ab, 87-b, 107-b, 109-b, 117-b, 126-b, 172-a, 182-c, 223-b.

UNDER COVER (35mm sound slidefilm) b&w. 15 min. Revised 1950. Describes and illustrates principal types of protective clothing and equipment. Explains why it is necessary and profitable for employee to use them. 103-c.

YOU BET YOUR LIFE: See Section 85.

YOUR FUTURE IS IN SIGHT (35mm sound slidefilm) b&w. 15 min. 1946. Importance of personal protective equipment for eyes in industry emphasized by telling how it feels to be blind. 103-c.

YOUR RICHEST GIFT (16mm sound motion) b&w. 12 min. 1951. Demonstrates eye protection program. Shows why protection is necessary and profitable. Suitable for supervisory personnel, employee meetings. 65-ac.

HOUSEKEEPING AND FALLS

DISORDERLY CONDUCT (35mm sound slidefilm) b&w. 15 min. Revised 1952. Covers the principal factors in industrial house-keeping. Includes a discussion on the personal factor in sanitation. 103-c.

THE FALL GUY (35mm sound slidefilm) b&w. 25 min. 1946. Discusses the hazards of various types of falls, which are shown to be the major cause of loss of time in most industries. 137-c, 201-c.

THE FALL OF MAN (35mm sound slidefilm) b&w. 15 min. 1945. Shows major cause of falls, both on and off the job, and some of the measures to be taken to prevent them. 103-c.

FALLS—Accidents Don't Happen Series (16mm sound motion) baw. 6 min. 1947. Advises workers to watch their step, keep floors clean and report danger spots immediately. Available in Spanish version from source 19. 19-a, 59-b, 87-b, 102-ab, 126-b, 172-a, {TV} 208-b.

GRIME DOESN'T PAY (35mm sound slidefilm) blw. 20 min. The importance of good housekeeping in preventing plant accidents. Story depicts a man hunt for the criminal "Poor Housekeeping," who is finally tracked down and thrown out by "Good Housekeeping." Workers are then convinced that "grime doesn't pay." 137-c.

KEEP IT CLEAN (35mm sound sildefilm) baw. 15 min. 1944. Proves any plant can be kept clean if everyone pitches in. "Before" and "after" pictures of housekeeping are shown. Tells how to interest workers in keeping the plant clean, and points out the trouble spots that need special attention. (TV) NSC-ab.

THE MAGIC CARPET (16mm sound motion) b&w. 11 min. 1943. How to prevent slipping accidents and eliminate fire hazards in industry. 100-c.

MAINTAINING A SAFE SHOP—Basic Shop Safety Series (35mm silent slidefilm) b&w. 64 frames. 1945. General discussion of shop safety. Illustrates need of keeping floors, aisles and stairways safe. Shows proper disposal of wiping cloths. Cautions about nails and proper disposal of scrap materials. Demonstrates best methods of handling and storing materials and moving heavy objects. 47-a.

NO ACCIDENTS: See Section 7.

NO LAUGHING MATTER (35mm sound slidefilm) b&w. 15 min. 1944. General discussion of falls in industry. Outlines prevention of falls involving vehicles, ladders and scaffolds, then points out miscellaneous fall hezards. (TV) NSC-ab.

SAFETY IS IN ORDER (Safety Management for Foremen Series): See Section 3.

9 MATERIALS: HANDLING AND STORAGE

BRAIN BEATS BRAWN (Safety Management for Foremen Series): See Section 3.

CONTROL OF FLAMMABLE LIQUIDS: See Section 12. DON'T DROP YOUR GUARD (16mm sound motion) col. 10 min. 1951. The importance of safety devices in the shop. How the worker can protect himself by becoming safety conscious. Of particular interest to those handling and storing materials. 2-c.

EASY DOES IT (35mm sound slidefilm) baw. 15 min. 1951. Safe practices in material handling. Demonstrates handling of a variety of materials. 103-c.

FREIGHT HANDLING SAFETY: See Section 28.

GIANT HANDS OF INDUSTRY (35mm sound slidefilm) b&w. 15 min. 1944. Points out the two main causes of crane accidents—failure to use correct hand signals and failure to keep in the clear. Illustrates standard hand signals and gives safety tips. (TV) NSC-ab.

HANDLE WITH CARE (35mm sound slidefilm) b&w. 20 min. 1951. The use of trucks to handle and move materials within the plant. Precaution which must be taken in their use. 137-c.

HANDLING — Accidents Don't Happen Series (16mm sound motion) b&w. 5 min. 1946. A Joe Doakes Fun Film in the form of a quiz. Covers most of the important points of materials handling. Available in Spanish from source 19. 19-a, 59-b, 87-b, 102-ab, 126-b, 172-a, (TV) 208-b.

HOW TO AVOID MUSCLE STRAIN (16mm sound motion) baw. 14 min. 1949. Technical approach to body actions involved in lifting. Shows stresses to which the body is subjected and methods of working with the muscles instead of against them. Also available in Spanish version from source 19. (TV) 19-ab, 223-b.

MAINTAINING A SAFE SHOP: See Section 8.

MAN-HANDLED (35mm sound slidefilm) b&w. 15 min. 1944. Points out that every man, women and child handles materials daily and that many accidents are caused by unsafe handling. 103-c.

MOSTLY PERSONAL: See Section 5.

SAFE HANDLING OF MATERIALS (35mm sound slidefilm) b&w. 15 min. 1945. Shows proper ways of lifting and carrying —avoiding strains, sprains, hernias, smashed fingers and toes. (TV) NSC-ab.

SAFE PRACTICES IN THE HOISTING OF MATERIAL (35mm silent slidefilm) baw. 82 frames. Discusses types of wire rope cable and shows methods of manufacture. Illustrates proper methods of handling—how to "seize" it, how to use slings properly, the right and wrong ways of clipping, the capacities of different wire ropes, hand signals used in hoisting, and the proper procedures to follow for safe hoisting. Test included. 24-c.

SAFETY IN CRANE HOOKING (16mm silent motion) b&w. 25 min. 1948. Specific instructions on hooking various kinds of loads for crane hoists. Several types of equipment shown. 179-c.

SAFETY SAVES [16mm sound motion] baw. 25 min. 1953. Safe practices in the operation of powered industrial trucks. May be used in training new drivers or as a refresher lesson for experienced men. 224-c.

YOU AND YOUR TRACTOR (35mm sound slidefilm) b&w. 15 min. 1946. Illustrates safe practices in operation of industrial power trucks. Covers lift trucks, flatbed and various types of industrial tractors. Includes manual for group discussion. NSC-a.

10 TOOLS: HAND AND POWERED

A B C OF HAND TOOLS (16mm sound motion) col. 34 min. 1946. Proper use of pliers, hammers, saws and other hand tools demonstrated through entertaining animated drawings. 39-c.

AXEMANSHIP: See Section 23.

FOR SAFETY'S SAKE (16mm sound motion) baw. 15 min. 1944. How to use, inspect, and care for portable power tools. Covers drills, grinders, saws, and electrical tools. Available in Spanish from source 19. (TV) NSC-ab, 19-a.

HAND TOOLS: HAMMERS, SAWS—Woodworking Tools and Machines Series (35mm silent slidefilm) b&w. 67 frames. 1944. Selecting, carrying and arranging tools at the workbench. Safe use of coping saws, handsaws, hammers. 47-a.

HELPING HANDS (35mm sound slidefilm) baw. 15 min. each. 1948. Three slidefilms illustrating safe practices in the use of various tools. Available separately or as a series.

Part 1: Common hand tool accidents and means of avoiding them. Covers hammers, wrenches, pliers, chisels, files, screwdrivers and non-sparking tools.

and non-sparking tools.

Part 2: Safe use of shovels, crowbars,
axes, hatchets, wood saws, hack saws and
drille.

Part 3: Safe use of portable power tools, including electric drills, saws, grinders, rotary scratch brushes, buffers and polishers. 103-c.

KNIFECRAFT (16mm sound motion) b&w or col. 11 min. 1948. An expert is shown whittling a doll lamp. Safety precautions stressed throughout. 17-ab.

PLANES, BITS, KNIVES, CHISELS, SCREWDRIVERS, FILES—Woodworking Tools and Machines Series (35mm silent slidefilm) bāw. 72 frames. 1944. Proper selection and use of these tools illustrated. Includes discussion of smooth, jack and jointer planes: gouges and wood rasps. 47-a.

RULES FOR TOOLS (35mm sound slidefilm) b&w. 20 min. 1942. Dramatizes safe practices in the use of small hand tools. Built around four rules: select the right tool, be sure it's in good condition, use it properly, and put it away safely. 25-a, 137-c.

SAFE IN HAND (35mm sound slidefilm) baw. 20 min. 1946. Consists of two film-strips: Part 1, Machinist's Tools and Part 2, Maintenance Tools. Part 1 illustrates safe practices in use of hammers, chisels, wrenches, pliers, screwdrivers. Part 2 shows safe practices in the use of saws, exes, pinch-bars, crowbars, and jacks. (TV) NSC-ab.

SAFE ONLY IN SMART HANDS—Coronet Safety Series (35mm silent slidefilm) baw. 52 frames. 1948. Gives rules for the safe operation of power driven saws, lathes, drills, and other machines. Also illustrates safe use of hand tools, such as hammers, screwdrivers, and saws. For junior and senior high school levels. NSC-a.

SOLDERING—Aircraft Mechanics Series (35mm silent slidefilm) b&w. 71 frames. 1942. Explains soldering and its uses. Shows methods, flux, types and heat sources. Illustrates steps taken in preparing the bit. Stresses safety precautions. 47-a.

USE AND CARE OF HAND TOOLS (16mm sound motion) baw. 1942. Series of six films showing proper use of hand tools and the accident hazerds to be avoided in their use. Titles: Wrenches (20 min.), Pliers and Screwdrivers (17 min.), Chisels (12 min.), Hammers (11 min.), Punches, Drifts and Bars (14 min.), Hacksaws (18 min.). Available singly or as a set. NSC-b, (TV) 200-ac.

MACHINE OPERATION AND

BAND SAW—Woodworking Tools and Machines Series (35mm silent slidefilm) b&w. 89 frames. 1944. Introduction to the band saw with names and functions of the parts. Also shows safe practices for setting up and using. 47-a.

BELT SANDER—Woodworking Tools and Machines Series (35mm silent slidefilm) baw. 84 frames. 1944. Introduction to belt sander, with names and function of parts. Safety precautions to take when setting up. operating, replacing abrasive belt and changing sander for horizontal operations. 47-a.

CIRCULAR SAW: PARTS, INSTALLING A BLADE—Woodworking Tools and Machines Series (35mm silent slidefilm) baw. 76 frames. 1944. Introduction to the circular saw. Nomenclature and function of parts. Basic safe practices information. 47-a.

CIRCULAR SAW: SETTING UP, OPER-ATING—Woodworking Tools and Machines Series (35mm silent slidefilm) b&w. 64 frames, 1944. Shows methods of setting up and using the circular saw and gives advice as to safe practices in operating, 47-a.

DISK SANDER—Woodworking Tools and Machines Series (35mm silent slidefilm) baw. 48 frames. 1944. Introduction to the disk sander. Shows kinds of sanders and gives nomenclature and function of the parts. Safe practices for setting up and using are demonstrated. 47-a.

DRILL PRESS—Woodworking Tools and Machines Series (35mm silent slidefilm) baw. 82 frames. 1944. Introduction to the drill press. Nomenclature and function of the parts. Safe practices for setting up and using. 47-a.

DRILL PRESSES: PARTS I AND II—Introduction To Machining Series, Kit C (35mm silent slidefilm) b&w. Part 1, 47 frames; Part 2, 43 frames. 1942.

Part 1: Types of presses and their structural parts; when and where used; safety precautions to be taken when holding drill in press.

Part 2: Holding work in press; saven major operations performed with press; safety precautions to be taken when using. May be obtained singly or as a set. 47-a.

GRINDING AND SHARPENING—Aviation Metalsmiths Series (35mm silent slidefilm) b&w. 17 frames. 1942. Shows proper methods of sharpening tools on electric grinders. Includes sharpening twist drills and checking drill angles with drill gauges. 47-a. GRINDING MACHINES—Introduction To Machining Series, Kit C (35mm silent slide-film) b&w. 40 frames. 1942. What grinders and grinding wheels are—what can be done with them—types of abrasives and wheels used—safe practices in using. 47-a.

THE GRINDING WHEEL, ITS CARE AND USE (16mm sound motion) col. 17 min. 1950. Points out that a grinding wheel is like any other cutting instrument and should be used with the same care and precautions as a knife. Tells how to care for and store it, use it safely, and gives correct dressing procedures. 62-c.

GRINDING WHEEL SAFETY (16mm sound motion) col. 20 min. Covers the principal cause of wheel breakage and emphasizes the need for proper guarding. Stresses need for care in selection of wheels, based on American Standard Safety Code for abrasive wheels. 62-c.

GUARD DUTY (Safety Management for Foremen Series): See Section 3.

JIG SAW—Woodworking Tools and Machines Series (35mm silent slidefilm) b&w. 96 frames. 1944. Introduction to the jig saw with names and function of parts; safe practices for setting up and using. 47-a.

JOINTER—Woodworking Tools and Machines Series (35mm silent slidefilm) b&w. 83 frames. 1944. Introduction to the jointer. Names and functions of its parts. Safe practices for setting up and using. 47-a.

KINDS, PARTS, SAFETY—Safe Practices in Metal Working Engine Lathe Series (35mm silent slidefilm) baw. 70 frames. 1946. Types and parts of metal working lathes. How to avoid injury when using. 47-a.

LATHE: FACEPLATE TURNING, OTHER OPERATIONS—Woodworking Tools and Machines Series (35mm silent slidefilm) b&w. 74 frames. 1944. Shows proper method of setting up lathe for faceplate turning, sending and polishing, and drilling. 47-a.

LATHE: PARTS, SPINDLE TURNING—Woodworking Tools and Machines Series (35mm silent slidefilm) baw. 86 frames. 1944. Introduction to the wood turning lathe. Types and nomenclature of parts. Safe practices for setting up and using a lathe for spindle turning. 47-a.

LATHES—Introduction to Machining Series, Kit C (35mm silent slidefilm) b&w. 105 frames. 1942.

Part 1: The lathe; its construction. Principal parts and functions. Holding work in lathe.

Part 2: Operations performed on lathefacing, streight turning, taper turning, drilling, boring, reaming, thread cutting, knurling. Care of lathes. Safety hints for their use. Available separately or as a kit. 47-a. MACHINES—Accidents Don't Happen Series (16mm sound motion) b.8w. 8 min. 1946. Discusses accidents caused by careless use of shop machines. Stresses use of guards on machinery, safe clothing and personal protective equipment. Available in Spanish from source 19. 19-a, 59-b, 87-b, 102-ab, 126-b, 172-a, (TV) 208-b.

MEN WHO COME BACK: See Section 3.

MILLING MACHINES—Introduction to Machining Series, Kit C (35mm silent slide-film) b&w. 61 frames. 1942. What the machine is—its construction and basic parts—how it works; safety precautions to be taken in using. 47-a.

OTHER SPECIALIZED MACHINES—Introduction to Machining Series, Kit C (35mm silent slidefilm) b&w. 45 frames. 1942. The basic principles of broaching machines, slotters, boring mills, profilers, and hobbers—what they do and the safety precautions to take when using them. 47-a.

PLANER—Woodworking Tools and Machines Series (35mm silent slidefilm) b&w. 75 frames. 1944. Introduction to planer with names and functions of parts. Safe practices for setup and use. 47-a.

PLANERS—Introduction to Machining Series, Kit C (35mm silent slidefilm) b&w. 40 frames. 1942. Difference between shaper and planer explained. Construction features of planer and types of work performed illustrated. Safety factors also introduced. 47-a.

POWER SUPPLY—Basic Shop Safety Series (35mm silent slidefilm) b&w. 120 frames. 1944. How to start and stop machines. Illustrates these machines wired separately from each other, controlled by hand master switch, using motor controllers and emergency stop stations, or driven by overhead belts. 47-a.

SAFE PRACTICES IN METALWORKING ENGINE LATHE SERIES (35mm silent slidefilm) b&w. 909 frames. 1942. A series of 11 slidefilms on the safe operation of the engine lathe. Covers most of the safety aspects in the use of that tool. Available as a series or singly. 47-a.

SAFE PRACTICES IN WOODWORKING TOOLS AND MACHINES SERIES (35mm silent slidefilm) b&w. 1059 frames. 1944. Series of 14 filmstrips giving instructions on operation of woodworking machines and tools. Stress safety precautions. For high school and adult levels. Available singly or as a series. See separate listings for detailed descriptions. Titles: Hand Tools-Hammers-Saws; Planes, Bits, Knives, Chisels, Screwdrivers, Files; Tool Grinder; Drill Press; Jig Saw; Band Saw; Disk Sander; Belt Sander; Lathe: Parts-Spindle Turning; Lathe: Faceplate Turning—Other Operations; Planer; Jointer; Circular Saw: Parts-Installing A Blade; Circular Saw: Setting Up-Operating, 47-a.

SAWMILL SAFETY: See Section 23.

SHAPERS—Introduction to Machining Series, Kit C. (35mm silent slidefilm) b&w. 42 frames. 1942. Basic parts and functions of the shaper. Shaper tools, types of work performed, and safety precautions to follow. 47-a.

SPECIALIZED MACHINES: TURRET LATMES—Introduction to Machining Series, Kit C (35mm silent slidefilm) b&w. 31 frames. 1942. Shows what turret lathe is and what can be done with it. Safety precautions to be taken in using also shown. 47-a.

TOOL GRINDER—Woodworking Tools and Machines Series (35mm silent slidefilm) b&w. 63 frames. 1944. Introduces tool grinder by explaining kinds used and names and functions of parts. Also gives safe practices in using. 47-a.

WOODWORKING MACHINES (35mm sound slidefilm) b&w. 17 min. 1946. Shows hazards in use of woodworking machinery. Discusses safety rules and practices. Instructor's manual included. (TV) NSC-ab.

12 FIRE AND EXPLOSIONS

A WAY WITH FIRES (16mm sound motion) baw. 30 min. 1951. Demonstrates proper operation of various types of fire extinguishers. Shows how many fires could have been extinguished if someone had known what to do in the emergency. (TV) 10-c.

APPROVED BY THE UNDERWRITERS: See Section 88.

CAUSE FOR ALARM (16mm sound motion or 35mm sound slidefilm) b&w. 13 min. 1950. Instructs worker on the control of fires—how to turn in an alarm, how to meet emergency situations. Shows in simple fashion how the various classes of fire extinguishers are used and explains the theory of combustion. Spanish version of 16mm sound motion available from source 19. (TV) NSC-ab, 19-a.

CHEMISTRY OF FIRE (16mm sound motion) b&w. 45 min. 1943. Demonstrates that the elements of fuel, oxygen and ignition temperature must be present in order to have fire. Differentiates between flash point and ignition point of fuels. Shows how fires may be extinguished. 57-ac, 87-b, 108-b, 109-b, 117-b, 223-b.

CONTROL OF FLAMMABLE LIQUIDS (16mm silent motion) b&w. 18 min. 1941. Wrong and right methods of handling, storing and conserving all types of flammable liquids. Safety factors found in flame arrester protected containers, vents and other devices stressed. 71-c.

CRUSADERS AGAINST FIRE (16mm sound motion) col. 26 min. 1952. General information on automatic sprinklers. Shows how they protect industry against loss by sudden fire. 75-ac.

DAMAGE CONTROL: CHEMISTRY OF FIRE (16mm sound motion) b.8w. 46 min. 1943. Fuel, oxygen and ignition temperature shown to be the necessary ingredients of fire. Ignition point and flash point of fuels explained. For high school and adult audiences. 24-c, 69-ab, 110-b, 112-b, 122-b, 137-c.

DAMAGE CONTROL: SCHOOL OF THE FIREFIGHTER (16mm sound motion) b&w. 40 min. 1943. Illustrates the proper method of approaching and fighting fires of all types—handling apparatus, and using carbon dioxide extinguishers and foam. 24-c.

FIGHT THAT FIRE (16mm sound motion) b&w. 12 min. 1943. Explains the types and various uses of fire extinguishers; also, how to handle special types of fires. 12-b, 69-ab, 86-a, 87-b, 108-b, 109-b, 117-b, 119-b, 122-b, 124-b, 127-b.

FIRE AND YOUR HOSPITAL: See Section 22.

FIRE POWER: See Section 27.

FIRE PREVENTION AND OTHER PRE-CAUTIONS IN WELDING AND CUT-TING: See Section 15.

HANDLE WITH CARE: See Section 32.

THE MAGIC CARPET: See Section 8.

MODERN MAGIC IN FIRE PROTECTION (16mm sound motion) baw. 30 min. Technical approach to industrial fire prevention. Shows the operation of certain types of sprinkler systems. 75-ac.

NOT TOO HOT TO HANDLE (16mm sound motion) col. 19 min. 1952. Illustrates various types of extinguishing equipment used to fight different types of fires. (TV) 231-ac.

OBJECT LESSON IN FIRE PREVENTION (16mm sound motion) baw. 14 min. 1950. Shows training in fire prevention of army and navy personnel working in overhaul and repair shops of military establishments. 154-a.

STOP FIRES, SAVE JOBS (16mm sound motion) b&w. 19 min. 1950. Shows employees how industrial fires start—what to do about them—how to turn in an alarm—what types of extinguishers should be used for each type of fire. 14-a, 27-c, (TV) 57-ac, 126-b, 127-b.

STOP THE FIRE THIEF (16mm sound motion or 35mm sound slidefilm) b&w. 13 min. Revised 1950. Shows many of the causes of industrial fires and explains how safe practices will eliminate them. Discusses improper handling and storage of flammable liquids, defects in electrical equipment, smoking hazards and poor housekeeping hazards. (TV) NSC-ab.

TRAINING FOR EMERGENCIES: See Section 17.

THE TRIANGLE OF FIRE: See Section 21.

WATERFOG, MASTER OF FIRE (16mm sound motion) col. 37 min. How Waterfog controls flammable liquid fires. Explains principle and operation of equipment. 75-ac.

13 CHEMICAL HAZARDS

EQUIPMENT FOR HAND SPRAYING OF DDT (35mm sound slidefilm) b&w. 13 min. 1947. Illustrates the structure and mechanism of equipment for hand spraying DDT. 91.c.

HAND SPRAYING OF DDT (35mm sound slidefilm) b&w. 15 min. 1946. Illustrates techniques for hand spraying of DDT. Explains care of equipment. 91-c.

POWER SPRAYING WITH DDT, EDITION II (35mm sound slidefilm) col. 14 min. 1945. Teaches a technique of power spraying DDT. Shows care of equipment. 91-c.

SAFE PRACTICES IN HANDLING DDT (35mm sound slidefilm) b&w. 5 min. 1945. Depicts hazards involved in handling DDT and methods of avoiding them. 91-c.

14 ELECTRICAL HAZARDS

LET'S FIGURE IT OUT (35mm sound slidefilm) b&w. 14 min. 1947. Illustrates the various causes of electric shock fatalities as determined by accident statistics. 34-a.

SAFE PRACTICES WITH LABORATORY AND ELECTRICAL EQUIPMENT (35mm silent slidefilm) baw. 47 frames. 1948. Five simple rules of safety in handling electrical equipment. Also, correct methods for handling laboratory glassware. 78-a.

SAFETY PRECAUTIONS FOR ELEC-TRONICS PERSONNEL (16mm sound mation) b&w. 18 min. 1952. Shows the special safety precautions to observe when working with various types of electronic equipment. 24-c, 154-a.

SHOCKING CONDITIONS (35mm sound slidefilm) b&w. 15 min. 1950. Points out electric shock hazards in industry and stresses the need for safe practices to prevent such accidents. 103-c.

15 WELDING AND CUTTING

AN INTRODUCTION TO WELDING— Oxyacetylene Welding Series (35mm silent slidefilm) båw. 64 frames. 1942. Demonstrates proper use of oxyhydrogen and oxyacetylene welding equipment. 47-a.

BURNING. THE SAFE WAY (16mm sound motion) b&w. 28 min. The safeguards every burner should take. Proper dress, safe work methods and use of safety equipment. Of interest to all who work with torches. NSC-b, 216-abc.

FIRE PREVENTION AND OTHER PRE-CAUTIONS IN WELDING AND CUTTING (35mm silent slidefilm) b&w. 93 frames. 1943. A step-by-step account of accepted fire prevention practices and other precautions in oxyacetylene welding and cutting. Student lesson books, as well as an instructor's manual are included. (TV) 50-a.

FUEL AND OIL TANK REPAIRS—Oxyacetylene Welding Series (35mm silent slidefilm) b&w. 32 frames. 1942. Shows the various safety precautions to be taken when repairing and welding fuel tanks. 47-a.

OXYACETYLENE CUTTING—Oxyacetylone Welding Series (35mm silent slidefilm) b&w. 39 frames. 1942. Cleaning and preparing the cut—preparing the cutting torch —safety precautions to take. 47-a.

SAFE HANDLING OF OXYGEN AND ACETYLENE CYLINDERS AND APPARATUS (35mm silent slidefilm) b&w. 93 frames. 1943. Safe practices in handling oxyacetylene equipment. Describes the step-by-step procedure to take. Student lesson books included. (TV) 50-a.

SAFETY FOR WELDERS (16mm sound motion) b&w. 7 min. Protective clothing and equipment for welders to prevent eye injuries and metal fume poisoning. 69-b, 111-b, 172-a.

SETTING UP AND LIGHTING THE WELDING TORCH—Oxyacetylene Welding Series (35mm silent slidefilm) b&w. 65 frames. 1942. Preparations for use of welding torch. Safety precautions to be followed when setting up and lighting. 47-a.

WELDING, THE SAFE WAY (16mm sound motion) b&w. 18 min. Training film for new welders. Illustrates safe working methods for most welding operations. NSC-b.

IG OFF-THE-JOB SAFETY

A SAFE DAY (16mm sound motion) b&w. 10 min. 1939. Covers home, highway and industrial safety. Shows typical safe worker giving attention to safe practices while driving, working and while at home. 30-b, 47-a, 49-b, 104-b, 108-b, 115-b, 120-b.

THE FALL OF MAN: See Section 8.

FOUR POINT HOME SAFETY (16mm sound motion) baw. 16 min. 1944. Shows the difference between on-the-job efficiency and safety, and off-the-job home accidents. Describes four points of a safe home: maintenance, good housekeeping, child protection, and safe attitudes and habits. 105-b, 109-b, 112-b, 217-b.

HAPPY NEW YEAR (35mm sound slidefilm) b&w. 15 min. Revised 1946. A series of off-the-job accidents are illustrated, followed by examples of safe practices which would have prevented them. 103-c.

MR. CASEY GOES TO TOWN (35 mm sound slidefilm) b&w. 15 min. 1950. General discussion of off-the-job safety and the hazards likely to be found in the average worker's life. 103-c.

ONCE TOO OFTEN (16mm sound motion) baw. 26 min. 1950. Precarious and foolish activities of a soldier on leave are recorded by an ethereal "fate," who finally decides that the soldier is taking a chance once too often. 137-c, 172-a.

SAFE ALL AROUND (35mm sound slidefilm) b&w. 18 min. 1945. Off-the-job safety. Deals with hazards in and around the home. Hazards are analyzed and methods for their elimination suggested. NSC-a, 137-c.

THE SEVENTH COLUMN (16mm sound motion) b&w. 10 min. 1943. An MGM Pete Smith short, proving carelessness the cause of accidents in the home, factory and on the streets. NSC-b, 104-b, 115-b, 126-b.

STOP, LOOK, AND BEWARE (35mm sound slidefilm) baw. 15 min. 1951. The importance of warning signs—traffic signals, safety signals in the factory, signs in stores and in the home. Points out the necessity of observing them. 103-c.

WHAT'S YOUR SAFETY I. Q.? (16mm sound motion or 35mm sound slidefilm) baw. I5 min. 1949. Deals with off-the-job safety. Illustrates safety in home, traffic, and recreation. Makes use of audience participation by means of question-answer pictures. (TV) NSC-ab.

YOU CAN TAKE IT WITH YOU (16mm sound motion, b&w. or col.; or 35mm sound slidefilm, col. only) 15 min. 1952. Story of a man who finds it safer to stay at work than go home to accidents until his foreman shows how he can take safety home with him. An amusing approach to off-the-job safety. (TV) NSC-ab.

17 MISCELLANEOUS

ACCIDENTS DON'T HAPPEN SERIES (16mm sound motion) b&w. 5-11 min. each. 1947-1952. A course in industrial safety designed for both supervisors and employees. Covers safety organization, housekeeping, operational hazards, protective equipment, safety supervisor work, and off-the-job safety. Two dangers emphasized throughout: physical hazards and human carelessness. Available singly or as a set. See individual listings for detailed description. Titles: Organization; Machines: Handling; Falls; Safe Clothing; Are You Safe At Home?; Safety Supervisor. 6-ab, 29-b, 42-ab, 45-b, 59-b, 66-b, 102-ab, 172-a, (TV) 208-b, 223-b.

BASIC SHOP SAFETY SERIES (35mm silent slidefilm) baw. 692 frames. 1944. Series of 8 slidefilms giving necessary safety precautions for using various machines and tools in the shop. Sold as a kit or individually. See individual listings for detailed description. Titles: Play Safe and Work Safely; Maintaining a Safe Shop; Safety Inspection; Training For Emergencies; Treatment For Bleeding-Shock-Preventing Infection; Aid For Injuries—Fainting—Burns; Eye Protection; Power Supply. 47-a.

FOUR THOUSAND YEARS OF EXPERIENCE (16mm sound motion) baw. 10 min. Good housekeeping and attention to safe practices are shown to have made wartime production easier. 49-b.

HERE'S HOW (35mm sound slidefilm) bāw. 15 min. 1950. Shows workers how to do various industrial jobs safely and efficiently. Cartoon treatment used. 103-c.

LEARN AND LIVE (35mm sound slidefilm) b&w. 15 min. 1944. Ten basic rules of industrial safety. How and why they are to be applied. What happens when they are ignored. (TV) NSC-ab.

PLAY SAFE AND WORK SAFELY—Basic Shop Safety Series (35mm silent slidefilm) b&w. 77 frames. 1944. A program for safety at work. Covers dress, personal habits and methods of working safely as a member of a group. 47-a.

SAFETY IN OFFICES (16mm sound motion) b&w. 10 min. Dramatizes in humorous style some of the more common accidents occurring in offices and presents ways of avoiding them. 87-b, 109-b, 137-c, 182-c.

SAFETY "KNOW HOW" IN THE WOOD SHOP (35mm silent slidefilm) b&w. 51 frames. 1950. General discussion and specific illustrations of safe practices in the wood shop when working with various types of equipment. Suitable for adult and high school audiences. 78-a.

SHOP SAFETY (16mm sound motion) b&w. 28 min. Safe practices in welding, hoisting, handling material, working with machinery, using tools and handling gasoline. 172-ab.

THREE BLIND MICE (16mm sound motion) b&w. 5 min. 1946. Demonstrates through animation, importance of observing safety rules in a factory. 45-b, 59-ab, 87-b, 109-b, 172-a.

TRAINING FOR EMERGENCIES—Basic Shop Safety Series (35mm silent slidefilm) b&w. 101 frames. 1945. How to deal with emergencies in the shop. Discusses clothing in machinery, clothing on fire, use of fire blankets, reporting fires, and the use of a fire extinguisher. 47-a.

Special Industries

III AIRCRAFT

A PLANE IS BORN (16mm sound motion) baw. 19 min. 1949. Depicts cooperative efforts of airplane manufacturers and Civil Aeronautics Administration to assure safety of new types of aircraft. Follows development of new aircraft from early design stages to completion of prototype. Includes views of some spectacular tests made on various parts of plane. (TV) 24-c.

AIR PILOTAGE—Aircraft Mechanics Series (35mm silent slidefilm) b&w. 76 frames. 1942. Shows the skills which go into the making of a good pilot and the safe practices he follows when operating a plane. 47-a.

AIRWAYS AIDS (35mm silent slidefilm) b&w. 69 frames. 1943. Traces development of airways markers and beacons. Discusses some of the course lights, runway markers and obstruction lights used today. 24-c.

AN OUNCE OF PREVENTION [16mm sound motion] col. 28 min. 1952. Brings out importance of preventive maintenance of airplanes used on the farm and ranch or by the businessman. Shows essential maintenance procedures. [TV] 24-c.

BAILING OUT (16mm sound motion) col. 9 min. 1950. Shows how and when to bail out of a plane with safety precautions to take when doing so. Done in cartoon style. 154-a.

CLEANING THE AIRPLANE—Aircraft Mechanics Series (35mm silent slidefilm) b&w. 45 frames. 1942. Good housekeeping and cleanliness as an aid to proper inspection of an airplane. Cleanliness as a factor in keeping the aircraft safe to fly. 47-a.

CRASH FIRE RESCUE (16mm sound motion) b&w. 23 min. 1945. The three essentials of fire: fuel, heat and oxygen. How water, carbon dioxide and foam are used as extinguishing agents. Extinguishing equipment demonstrated on fires resulting from simulated crashes. For training air crash rescue crews. 24-c.

DAMAGE CONTROL: CHEMISTRY OF FIRE: See Section 12.

DAMAGE CONTROL: SCHOOL OF THE FIREFIGHTER: See Section 12.

DITCHING WITHOUT HEDGING (16mm sound motion) baw. 22 min. 1943. Method by which a pilot may ditch his plane in water and have time to escape. 24-c.

ENGINE CHANGE: INSTALLATION (16mm sound motion) baw. 17 min. 1944. Safety precautions when installing aircraft engines. Inspecting the engine mount, controls, firewall; connecting controls and attachments; ground-testing engine; preparing for check flight. 24-c, 172-a.

ENGINE CHANGE: REMOVAL (16mm sound motion) b&w. 17 min. 1944. Safety precautions when removing the aircraft engine. Disconnecting controls and attachments; removing engine; inspecting mount, firewalls and controls. 24-c. 172-a.

EVERY TENTH MAN (16mm sound motion) b&w. 20 min. 1943. Safety in an aircraft plant. Emphasizes proper use of available safety equipment. Shows methods of avoiding injuries by highlighting the "Accidents don't happen—they are caused" theme. 112-b.

FLAT HATTING (16mm sound motion) baw, 15 min. Points out dangers of low flying and stunting. In cartoon form. 154-b.

FLIGHT SAFETY SERIES (16mm sound motion) b&w. 1945-1947. A series of six films designed to instruct the new pilot on various aspects of operating an eirplane safely. Cartoon approach. Available singly. Pitles: Discrientation Crashes (5 min.); Engreyency Landing On Land (6 min.); Flat Hatting (5 min.); Landing Accidents (6 min.); Spins and Stalls (18 min.); Taxiing Collisions (5 min.). 24-c.

FLY HIGH AND LIVE: OXYGEN EQUIP-MENT (15mm sound motion) b&w. 28 min. 1944. Designed to instruct pilots and all flying personnel on use of diluter deman oxygen equipment. Explains operation of system and points out safety measures for equipment. 24-c.

GRINDING AND SHARPENING: See Section 11.

GROUND CREW SAFETY (16mm sound motion) b&w. 17 min. 1944. Discusses causes of spontaneous combustion. Points out "don'ts" when working with batteries, torches, gasoline, and drop cords. Safety precautions for refueling and starting a plane also covered. 24-c.

IN THE DRINK (16mm sound motion) b&w. 12 min. Describes the emergency equipment carried by all British bomber aircraft. Shows what happens from the time a bomber hits the sea until the crew is picked up by the Air Rescue Service. 24-c.

INTEGRATED LANDING AIDS: PART I (I6mm sound motion) col. 25 min. 1948. Basic principles in use of Instrument Landing System and Ground Control Approach. Manner in which they are integrated to provide maximum safety for the pilot. Designed for the use of qualified pilots. 24-c.

INTEGRATED LANDING AIDS: PART II (16mm sound motion) col. 23 min. 1948 Basic principles of the various systems of High Intensity Lighting and Intensive Dispersal of Fog. Manner of integration of the various landing aids to provide maximum safety. For qualified pilots. 24-c.

LEARN AND LIVE (16mm sound motion) b&w. 45 min. 1943. Safe practices for pilots. Dramatizes some of the more common errors in flying and emphasizes the need for the pilot to give constant attention to his job. 24-c.

OXYGEN EQUIPMENT: SERVICING EQUIPMENT IN THE AIRPLANE (16mm sound motion) b&w. 11 min. 1943. How to refill oxygen tanks and replace them in different types of planes. Safety stressed throughout. 24-c.

OXYGEN EQUIPMENT: SERVICING THE HIGH PRESSURE REMOVABLE CYLINDER [16mm sound motion] baw, 10 min, 1943. Demonstrates how to refill airplane oxygen tanks, showing precautions to prevent moisture and oil from getting into the fittings. 24-c.

OXYGEN EQUIPMENT: TYPES AND USE AT HIGH ALTITUDES (16mm sound motion) baw. 20 min. 1942. Discusses the characteristics and operation of Air Force oxygen masks. Shows how to adjust and use each type properly. 24-c.

PARACHUTES FOR SAFETY (16mm sound motion) b&w. 25 min. 1950. Safety factors in manufacturing, inspecting, maintaining, and using parachutes. 19-ac, 24-c.

PERIODIC INSPECTION: ENGINE (16mm sound motion) b&w. 23 min. 1944. How to inspect general condition of aircraft engine. Covers ignition and fuel system check, examination of internal parts and propeller, and insuring the security of all parts. 24-c, 172-a.

PILOT IS SAFE (16mm sound motion) b&w. 9 min. An R.A.F. pilot, down at sea, is kept afloat by his rubber dinghy until picked up by a rescue boat. 24-c.

PLANE PERFORMANCE — Aircraft Mechanics Series (35mm silent slidefilm) båw. 89 frames. 1942. Landing, cruising and maximum speed; range; endurance; rate of climb; service ceiling and absolute ceiling defined and explained. Factors determining performance, lift, weight, thrust, and drag illustrated. Wing loading, power loading and their effect on performance shown. Also, safety pointers on safe load factors. 47-a.

PREFLIGHT INSPECTION: AIRPLANE (16mm sound motion) b&w. 17 min. 1944. The necessity for careful and thorough preflight inspection of aircraft by use of "circle method." Explains and illustrates how each part (landing gear, wings, fuselage, tail surfaces, cabin, controls, instruments) is inspected. 24-c, 172-a.

PREFLIGHT INSPECTION: ENGINE (16mm sound motion) b&w. 13 min. 1944. Emphasizes importance of continuous preventive maintenance in keeping aircraft engine airworthy. Need for safe working habits during inspection and inspector's responsibility in signing preflight forms highlighted. 24-c, 172-a.

PRIMARY FLIGHT TRAINING: BEFORE YOU FLY (16mm sound motion) b&w. 35 min. 1945. Pre-flight inspection, starting and stopping procedures and care of parachutes demonstrated. Emphasis placed on inherent dangers of not following instructions. Know-it-ali cadet is compared with a student with good attitude to point out correct procedures. 24-c.

PRIMARY FLIGHT TRAINING: SAFE FOR SOLO (16mm sound motion) b&w. 15 min. 1945. Flight instructions for emergency landings—lost and strange field procedures. Discusses altitudes, winds, airspeeds, ground approaches and takeoffs relative to each situation. Animation used in some cases. 24-c.

PROPELLER MAINTENANCE—Aircraft Engine Mechanics Series (35mm silent slidefilm) b&w. 61 frames. 1942. Different types of propellers shown, with methods of cleaning, oiling and inspecting described. Illustrates field repairs, smoothing nicks and gashes, etching for cracks, straightening bent blades, checking alignment, and propeller hub lubrication. 47-a.

REFUELING THE AIRPLANE — Aircraft Engine Mechanics Series (35mm silent sliderilm) b&w. 64 frames. 1942. Step-by-step airplane refueling procedure, showing equipment required, preparations before refueling, and the safety measures to be observed. 47-a.

REPAIRING SHEET METAL SURFACES
—Aviation Metalsmiths Series (35mm silent
slidefilm) b&w. 60 frames. 1942. Classifies
sheet metal repairs most often needed.
Shows how to remove dents, repair cracks,
holes, and replace panels. Gives safety precautions to be taken on the job. 47-a.

RESCUE SQUADRON (16mm sound motion) b&w. 17 min. 1951. Shows the work of the Air Rescue Service in the salvage of human life, both military and civilian, in times of disaster. 24-c.

SAFE AIRCRAFT (16mm sound motion) b&w. 24 min. 1950. Shows how CAA and the aviation industry work together for safety in the manufacture and maintenance of aircraft. A sequel to the film, "A Plane Is Born," but complete in itself. (TV) 24-c.

SAFE AIRMEN (16mm sound motion) b&w. 22 min. 1950. How CAA aviation safety agents work toward improvement of flight safety by insistence upon and certification of the proficiency of airmen. (TV) 24-c.

SAFE FLIGHT OPERATIONS (16mm sound motion) b&w. 20 min. 1950. Some of the steps taken by the CAB, CAA, and the aviation industry to further safe flight operations. Specific activities of the CAA aviation safety agent in this effort are shown. (TV) 24-c.

SAFETY IN AIR STATIONS (16mm sound motion) b&w. 13 min. 1944. Designed to impress air station employees that accidents can be prevented by sensible application of safety rules. Examples are shown and each time accidents are seen to have been a result of carelessness. 24-c.

SAFETY IN AVIATION (16mm sound motion) b&w. 28 min. 1941. Illustrates the activities of CAA, CAB, and the aviation industry in furthering safety in aviation. (TV) 24-c.

SEA RESCUE EQUIPMENT FOR AIRPLANE CREWS: INSPECTION AND
MAINTENANCE (16mm sound motion)
b&w. 25 min. 1943. Depicts a pilot bailing
out, hitting the water, and using his life
vest. Shows how vests are inspected prior
to issue, how a cold patch is applied, how
the life raft is inspected, and inspection of
the survival kit. How to pack the raft and
how to stow it in the airplane raft compartment, also shown. 24-c.

SEA RESCUE EQUIPMENT FOR AIR-PLANE CREWS: ONE MAN SEA RES-CUE EQUIPMENT (16mm sound motion) b&w. II min. 1943. Demonstrates preflight inspection of the one man see rescue equipment and shows how this equipment is used during an actual emergency. 24-c. SERVICING AN AIRPLANE (16mm sound motion) b&w. 17 min. How to perform routine servicing operations on a light airplane. Includes safe methods of pushing a plane on the ground, cleaning an airplane, inflating tires, refueling, changing oil, and starting engine. Also shows hand signals for guiding pilots. 172-a.

SOLDERING: See Section 10.

STARTING, TAXING, TAKING OFF (16mm sound motion) baw. 10 min. Describes landing geer, starting the engine, use of the tab to produce or overcome nose or tail heaviness, and cautions about take-offs. 24-c.

THAT MEN MAY FLY (16mm sound motion) baw. 23 min. 1949. How the activities and accomplishments of Air Surgeon, School of Aviation Medicine and Aero Medical Laboratory give U. S. Air Force the best protection and care modern science can provide. (TV) 24-c.

YOUR SAFETY BELT (35mm silent slidefilm) b&w. 45 frames. 1942. Stresses importance of having safety belt properly fastened. Shows ways it might come loose. Illustrates precautions to be observed in using belt. 24-c.

19 CEMENT AND QUARRY

BEFORE THE BLAST: See Section 24.

JACKHAMMER SAFETY (35mm silent slidefilm) b&w. 49 frames. 1946. Demonstrates standard safe practices in drilling and blasting. Emphasizes the importance of protective equipment and of keeping jackhammer in good condition. (TV) NSC-ab.

OPERATING HEAVY DUTY TRUCKS SAFELY: See Section 20.

20 CONSTRUCTION

BEFORE THE BLAST: See Section 24.

BUILDING CONSTRUCTION SAFETY (35mm silent slidefilm) b&w. 36 frames. 1949. Aimed directly at the old superstition that each story of a building is paid for with the life of a worker. Covers demolition, steel scaffolding, ladders, unguarded floor openings, concrete placement, material hoists, housekeeping and other factors. [TV] NSC-ab.

BUILDING CONSTRUCTION SAFETY (35mm sound slidefilm) b&w. 90 min. 1950. A unit of five films dealing with light and heavy construction. Brings home to the workers and their supervisors in the various construction jobs a fuller awareness of the importance of safety on the job. 64-abc.

CONSTRUCTION CREW PLANNING (35mm sound slidefilm) baw. 29 min. 1945. Solutions to typical construction problems, showing how maximum safety and efficiency are obtained through proper job planning. 10-c.

CONSTRUCTION EQUIPMENT SAFETY (35mm sound slidefilm) b&w. 20 min. 1945. The dozen unsafe acts which cause three out of four accidents with construction equipment. Illustrations of these mistakes and the safety rules all workers must observe. (TV) NSC-ab.

JACKHAMMER SAFETY: See Section 19.

LADDERS, SCAFFOLDS, AND FLOOR OPENINGS (16mm sound motion) col. 9 min. 1948. How to build safe accessory equipment for construction jobs, with suggestions on its use and maintenance. 2-c.

OPERATING HEAVY DUTY TRUCKS SAFELY (35mm sound slidefilm) b&w. 12 min. 1952. Covers hezards in operating heavy duty trucks over roadways, on the dump, towing, and in other phases of their use. Designed principally to point out the practices necessary to prevent the most serious accidents, but also discusses unsafe practices that result in minor damage. (TV) NSC-a.

SAFETY IN LAND CLEARING: See Section 23

USE YOUR HEAD, SAVE YOUR NECK (35mm sound or silent slidefilm) b&w. 47 frames. 1947. How most accidents in construction trades could be eliminated or prevented. Some of the good and bad habits in building practices shown. 59-b, 211-a.

WATCH YOUR STEP (16mm sound motion) baw. 12 min. 1950. Explains and illustrates safety regulations in the building industry. A general interest film suitable for employee or supervisor. 20-ab.

21 FOOD PROCESSING

DDT: See Section 13 for films on use.

IT'S UP TO YOU (16mm sound motion) col. 30 min. 1951. Deals with safety in the bakery and confectionery industry. Actual accidents are reproduced in great detail. Showings restricted to safety engineers and to the bakery and confectionery industries. 233-c.

SAFETY IN THE CANNING INDUSTRY (35mm sound slidefilm) b&w. 14 min. 1950. Hazards encountered in hauling and processing foods in the field, and safe practices in the cannery. 36-c.

THE TRIANGLE OF FIRE (16mm sound motion) b&w. 16 min. 1950. Fire prevention for flour mills and allied industries. Shows many fire hexards found in these industries and gives steps for fire prevention. 168-a.

22 HOSPITAL

DIAGNOSIS DANGER (16mm sound motion) b&w. 20 min. 1948. Shows method of inaugurating a safety program in a hospital. NSC-b, 76-c, 115-b.

FIRE AND YOUR HOSPITAL (16mm sound motion) b&w. 25 min. 1952. How a hospital fire safety plan should be organized. How each department of the hospital should react to a fire alarm. Demonstrates methods used in saving patients and in preventing the spread of the fire. (TV) 14-a, (TV) 57-ac, 127-b.

GS-I MEETS THE LABORATORY: See Section 33.

THE HANDLING AND USE OF GLASS-WARE: See Section 33.

INFECTIOUS HAZARDS OF BACTERIOLOGICAL TECHNIQUES SERIES (35mm sound slidefilm) col. 9-13 min. each. 1951-2. A series of films illustrating safe practices for laboratory technicians who work with infectious organisms. Particularly designed to combat techniques which may liberate dangerous aerosols. Available separately or as a series. Titles: The Inoculating Needle, The Hypodermic Syringe, The Pipette, The High Speed Blender, The Lyophilizer. 91-c.

YOU CAN BE SAFE FROM X-RAYS (16mm sound motion) baw. 10 min. 1951. How unsafe habits of hospital x-ray technicians cause serious burns. Safe practices shown. 91-ac.

23

LOGGING, PULP AND PAPER, AND WOOD PRODUCTS

AXEMANSHIP (16mm sound motion) b&w.
11 min. 1945. Peter McLaren, who has held world records for chopping, demonstrates the safe use of an axe. 12-b, 17-ab.

THE ENEMY IS FIRE (16mm sound motion) col. 26 min. 1952. Shows planning of a fire prevention system in logging operations. Illustrates the use of such equipment as pumps and hand tools on the fire line. Film has been planned so that it can be divided into six separate short films, each covering a special phase of forest fire prevention and suppression. 157-ab.

FALLING TIMBER (16mm sound motion) col. 22 min. 1949. Discusses many of the safety factors in the logging industry. 157-ab.

HAULING LOGS (16mm sound motion) col. 23 min. 1951. Illustrates precautions taken by the lumber industry in handling and hauling logs. 157-ab.

SAFETY IN LAND CLEARING (16mm silent motion) b&w. 25 min. Safe practices for loggers, road construction crews, and others working at land clearance. 36-c.

SAFETY "KNOW HOW" IN THE WOOD SHOP: See Section 17.

SAWMILL SAFETY (35mm sound slidefilm) b&w. 17 min. 1945. A safety tour through a sawmill. Illustrates safety precautions from the pond, through all operations, to the piling machine. Also shows first aid, proper methods of housekeeping and use of protective equipment. (TV) NSC-ab.

THE STORY OF PIERRE AND MARIE (16mm sound motion) col. 35 min. 1951. Because of a near-fatal accident a young woodsman is inspired to work safely and tries to persuade others to do likewise. A safe practices film for loggers. 158-a.

TIMBER (35mm sound slidefilm) b&w. 17 min. 1945. A logging company safety committee in action. Topics discussed are walking on logs, falling hazards, injuries from axes and saws, lines and gear, and other common hazards. (TV) NSC-ab.

WOOD HANDLING SAFETY (35mm sound slidefilm) b&w. 15 min. Safe practices in the production of pulpwood—from storage piles to the chippers. 21-c.

YARDING LOGS (16mm sound motion) col. 23 min. 1950. Shows safe logging practices in the yards after the trees have been felled. 157-ab.

24

BEFORE THE BLAST (16mm sound motion) col. 10 min. 1950. Preparation and handling of explosives in most blasting operations shown. Emphasis on safety precautions throughout. 2-c.

BLASTING SAFELY IN MINES (35mm silent slidefilm) b&w. 51 frames. 1949. Demonstrates the know-how involved in the safe use and storage of explosives. (TV) NSC-ab.

EYE ACCIDENTS (16mm silent motion) b&w. 15 min. Illustrates proper methods of eye protection for workers in underground mining. NSC-b.

FALLING GROUND (35mm sound slidefilm) b&w. 25 min. 1947. Shows safe and unsafe methods of handling loose ground in mining operations. (TV) NSC-ab.

FALLS OF PERSONS (35mm sound slidefilm) b&w. 15 min. Shows the various hazards which can cause serious falls to miners. Lists safe practices to prevent such hazards and shows what happens when safety measures are ignored. NSC-b.

JACKHAMMER SAFETY: See Section 19.

MECHANIZED MINING SAFETY (35mm sound slidefilm) baw. 12 min. 1953. Covers safe practices in mining with mechanical equipment. Includes illustrations of roof bolting procedures, drilling, blasting and mechanical loading. NSC-b.

ONCE IN A LIFETIME (16mm sound motion) b&w. 29 min. 1952. Designed to revive interest in mine rescue training, and promote interest in first aid training for civil defense purposes. Suitable for miners and general public. 229-a.

OPERATING HEAVY DUTY TRUCKS SAFELY: See Section 20.

SAFE HAULAGE IN COAL MINES (35mm silent slidefilm) baw. 45 frames. 1949. Safe operation and maintenance of motors and cars used in mining operations. Based on actual accident experience. (TV) NSC-ab.

25 MEAT PACKING

PACKED WITH SAFETY (35mm sound slidefilm) b&w. 15 min. 1944. Illustrates importance of using caution while working with knives and meat hooks. Discusses protective equipment, first aid, and lifting. Safe practices for machinery cleaning and repairing also covered. Produced for use by the meat packing industry. (TV) NSC-eb.

26 PUBLIC UTILITY

ANOTHER LOOK AT ACCIDENTS (35mm sound slidefilm) baw. 25 min. 1944. Enacts a number of actual accidents in which telephone workmen were injured. Shows how safety precautions could have prevented them. 10-c.

THE ART OF CLIMBING (16mm sound motion) col. 22 min. 1944. A telephone workman is shown being taught the safe way to work on poles while wearing line-

man's climbers. Emphasis is on technique, with details explained and illustrated. Covers proper maintenance of climbers and use and care of body belt and safety strap. 10-c.

BREATH OF LIFE (16mm sound motion) col. 15 min. Outline of the methods used in applying tree-top resuscitation to tree trimmers who have come in contact with power lines. NSC-b.

COAL TO KILOWATTS (35mm sound slidefilm) b&w. 15 min. 1951. Safe practices in the operation of steam generating plants. Of interest to all personnel of such plants. 34-a.

THE EASY WAY (35mm sound slidefilm) b&w, 15 min, 1945. Designed to promote safety consciousness among women employees in the telephone industry. 10-c.

HOW IT HAPPENED (16mm sound motion or 35mm sound slidefilm) baw. 30 min. 1940. Safe practices for telephone plant workmen. Consists of ten episodes taken from reports of actual accidents. Prologue and epilogue review the safety points discussed. 10-c.

INSTALLING ARMORED CABLE (16mm sound motion) baw. 28 min. 1948. Care and safety precautions needed to install armored cable in compliance with national safety code. 19-a, (TV) 58-abc.

LIFE LINES OF DEFENSE: See Section 87.

LINEMAN SAFETY TRAINING (16mm sound motion) col. 43 min. 1951. Safety precautions linemen should take. Discusses transformers, hot-line tools, voltage regulators, circuit breakers, capacitors, pole-top resuscitation. Proper use of various items of equipment also shown. [TV] 149-ab.

MINUTE MEN (35mm sound slidefilm) b&w. 20 min. 1942. Dramatizes the hazards involved in the work of ultility company linemen—the safety precautions they must observe. Also safety rules for boiler room, substation and meter department workers. (TV) NSC-ab.

NO SHORT CUT (16mm sound motion) b&w. 30 min. 1940. General discussion of safe practices for electrical and gas engineers in shop and field. 240-ab.

POLE TOP RESUSCITATION (16mm silent motion) b&w. 15 min. 1934. Demonstrates pole top resuscitation methods. For use by public utilities workers. 33-ac.

RING DOWN THE CURTAIN (35mm sound slidefilm) b&w. 20 min. 1944. Emphasizes relationship between unsafe work practices and accidents. Although designed primarily for showing to telephone company workers, adaptable to the needs of safety directors in other fields of industry. 10-c.

SNAKE EYES (35mm sound slidefilm) b&w. 14 min. Demonstration of recommended procedures taught by one electric utility to employees working around live equipment in electric stations. Shows arrangements before job is started, active supervision, use of watchers and restoration of service after the job is accomplished. 34-a.

THE TELEPHONE LINEMAN (16mm or 35mm sound motion) b&w. 20 min. 1947. Shows the work of a telephone lineman and the safety precautions he must take on the job. (TV) 10-c.

THIS WILL KILL YOU (35mm sound slidefilm) col. 25 min. 1952. Shows the effect of electric shock on the human body. Emphasizes that a weak current can cause death under certain circumstances. Ends by illustrating typical situations where a telephone lineman may come in contact with electrical circuit and shows how bad accidents can be avoided under these conditions. 238-a.

TREMENDOUS TRIFLES (35mm sound slidefilm) b&w. 15 min. 1948. How trivial things have resulted in serious accidents. Uses actual cases from Edison Electric Institute files. 34-a.

UP AND DOWN WITH SAFETY (16mm sound motion) b&w. 44 min. 1943. Directed to public utility worker. Demonstrates correct methods of climbing and working on poles, stressing use of extension ladders. Covers pole testing, maintenance of climbers, body belts and safety straps. (TV) 4-a, 10-c.

WHEN YOU LEAST EXPECT THEM (35mm sound slidefilm) b&w. 14 min. 1945. Directed to telephone employees. Shows series of common accidents which injure employees through their failure to take proper safety precautions. 10-c.

27 PETROLEUM

A DAY AT THE PLANT (16mm sound motion) col. 23 min. 1950. General information on the importance of gasoline plant operation to over-all company operations in the petroleum industry. Safety is emphasized. A typical safe worker is shown going about his duties during a day at the plant. (TV) 81-c.

CAPTAIN CAUTION (16mm sound motion) b&w. 22 min. 1945. Safe practices in use of motor boats engaged in marine petroleum operations. 190-a.

CONTROL OF FLAMMABLE LIQUIDS: See Section 12.

DRILLING THE SAFE WAY (16mm sound motion) col. 15 min. 1952. Deals with safety problems in geophysical shot-hole drilling. Shows right and wrong way to carry out many of the operations experience has shown to have resulted in serious injuries. Suitable for training new employees. 225-ac.

FIGHTING PETROLEUM FIRES (16mm silent motion) col. 35 min. 1943. Demonstrates various methods used to control and extinguish petroleum fires by use of CO₂, CTC, combination gas and powder, steam, etc. Also illustrates control of oilwell fires under difficult conditions. (TV) 73-ac.

FIRE POWER (16mm sound motion) b&w.
17 min. 1951. Describes proper methods of handling gasoline. Non-technical demonstrations used to show the common causes of gasoline fires and the basic principles involved in fighting these fires. (TV) 191-c.

FUEL AND OIL TANK REPAIRS: See Section 15.

THE HAZARDOUS HELPER (16mm sound motion) col. 16 min. 1948. Illustrates dangers in the use of catheads in drilling operations. Precautions necessary to make them safe shown. 190-a.

MAKE NO MISTAKE (16mm sound motion) col. 20 min. 1950. Impresses petroleum industry employee of the importance of safe practices in seismograph operations. Relates to all phases of seismic field operations. 166-c.

MORE THAN MAGIC (16mm sound motion) col. 18 min. 1948. Unusual story treatment uses a parellel between a magician's act and handling of tongs, slips and elevators while a round trip on a drilling rig is being made. Constant flashbacks to the magician provide a comparison to show how alertness, preparedness and skill are essential to success and safety in drilling. 190-a.

OIL FIRES, PREVENTION AND EXTINGUISHMENT (16mm sound motion) b&w. 40 min. 1937. Fundamentals of fire protection in the oil industry. Made to instruct employees of the Standard Cil Company of California. 80-a.

PIPELINE ON WHEELS: See Section 40.

PORTABLE WELL SERVICING UNIT (16mm sound motion) col. 28 min. 1949. A supervisor explains to a new employee the operating procedures used in lowering portable masts on oil wells that need reworking. Safe practices are stressed. 190-a.

RECORDING THE SAFE WAY (16mm sound motion) col. 15 min. 1953. Considers the many work hazards encountered in recording operations in geophysical seismograph operations. Shows right and wrong way to carry out work. Suitable for training new employees. 225-ac.

THERMAL FORCES (16mm sound motion) col. 26 min. 1946. Explains thermal expansion in oilwell drilling. Points out danger of thermal forces in operating equipment and gives safety precautions. 190-a.

TROUBLE LURKS BELOW (16mm sound motion) col. 30 min. 1942. Combatting oilwell fires with aid of directionally drilled wells. Shows detailed planning, types of equipment and methods employed. 190-a.

28 RAILROAD AND MARINE

BEFORE HIS TIME (16mm sound motion) col, 10 min. 1948. Last tragic day in the life of a yardman. Shows how carelessness costs lives. Closes with appeal for common alertness in all railroad operations. (TV) 128-ac.

THE BREAKING POINT (16mm sound motion) col. 20 min. 1953. Produced for the Pennsylvania Railroad Station Departments to create an awareness of carelessness and its consequences, among its employees. (TV) 133-ac.

CAPTAIN CAUTION: See Section 27.

CLEAR SIGNAL (16mm sound motion) col. 20 min. 1952. Safety in railroad operations from the viewpoint of the Transportation Department. "Safety in Action" is keynoted. (TV) 128-ac.

CLOSE CALL FOR JIMMY: See Section 62.

DON'T LET IT HAPPEN TO YOU (16mm sound motion) baw or col. 19 min. 1949. Hazards of various phases of railroading. Includes operation of motor cars, repairing and replacing rails, scaling and descending bridges, and use of protective equipment by signal crews. 13-ac, (TV) 140-a.

EASY DOES 1T [16mm sound motion] col. 20 min. 1949. Proper care and handling of materials by railroad loading crews. (TV) 140-a.

FREIGHT HANDLING SAFETY (16mm sound motion or 35mm sound slidefilm) b&w. 11 min. 1950. Various hazards found in operations in and around freight cars. Illustrates the wrong way to load and unload freight. Real-life characters have some very real accidents due to unsafe practices. All get a chance to do the job the safe way in the end. (TV) NSC-ab.

FRISCO FIRST VIA SAFETY FIRST (16mm sound motion) col. 16 min. 1945. Covers railroad maintenance and inspection. Includes a sequence on personal protective equipment. 129-ac.

IT CAN HAPPEN TO YOU (16mm sound motion) col. 20 min. 1951. A number of realiroad employees say, "It can't happen to me." It does, and the audience comes to realize that "It can happen to me." Demonstrates that an attitude of alert self-interest is needed to prevent accidents. (TV) 130-c, (TV) 140-a.

IT DOESN'T HAVE TO HAPPEN (16mm sound motion) col. 20 min. 1950. Personal protective equipment, prevention of falls, and shop safety in general. Starts with a preview of the extreme difficulties overcome in the building of the Southern Pacific Railroad. For railroad workers. (TV) 128-ac.

IT'S YOUR CHOICE (16mm sound motion) baw. 10 min. 1951. "You can play it safe or take your chances—it's your choice!" An old yardhand tells how he learned to follow the rules of safety through the tragedy of a friend. (TV) 128-ac.

KEEP 'EM ROLLING (35mm sound slidefilm) b&w. 15 min. 1945. A car foreman and a railroad safety officer discuss the precautions every car man should and must take to protect himself and others from injury. (TV) NSC-ab.

MAINTENANCE OF WAY MISHAPS [16mm sound motion] col. 19 min. 1945. Shows a series of five accidents occurring in a maintenance of way department. Explains how these accidents might have been prevented. [TV] 128-ac.

MEN AND MOTIVE POWER (35mm sound slidefilm) b&w. 15 min. 1945. Dramatizes the precautions which should be observed in railroad roundhouses and shops. Discusses falls—how they can be eliminated. Shows correct use of tools and the importance of protective equipment. (TV) NSC-ab.

MEN OF MAINTENANCE (16mm sound motion or 35mm sound slidefilm) baw. 15 min. 1951. Illustrates, for railroad maintenance men, the precautions to be observed in operating motor track cars. Shows proper use of various types of maintenance equipment on or near the third rail. (TV) NSC-ab (sound slidefilm only), 131-ac.

MY BROTHER'S KEEPER (16mm sound motion) b&w. 10 min. 1951. The story of a conscientious railroad worker who makes it a point to draw attention to unsafe practices whenever he comes across them. Because his fellow employees regard him as a busybody, he stops. When his best friend loses an arm through carelessness, he decides to continue to protect them no matter what they think. (TV) 128-ac.

NOT BY CHANCE (16mm sound motion) baw or col. 33 min. 1951. Explanation of the program used by the Pennsylvania Railroad to make their operation one of the

safest in the country. Shows how employee interest was obtained and how the attitude of the workers changed for the better. (TV) 133-ac, (TV) 176-a.

PASSENGER TRAIN (16mm sound motion or 35mm sound slidefilm) b&w. II min. 1940. A journey on a modern diesel-electric passenger train reveals duties of train personnel, operation of track signals, and provisions for the comfort and safety of passengers. (TV) 37-ab, 117-b.

PLAY IT SAFE (16mm sound motion) col. 12 min. 1952. Safe practices for railroad train and yard service employees. Compares "playing it safe" in Little League baseball and on the job. 13-a.

RAILROAD SAFETY (16mm silent motion) b&w. 14 min. 1931. Outlines various factors essential to safety in railroad transportation. (TV) 37-ab.

RIDING ON EQUIPMENT, SAFELY (16mm sound motion) col. 8 min. 1950. Shows the various cars with which railroaders must work. Discusses proper methods of riding them and the results of using unsafe practices. 241-ac.

THE SAFE RAILROADER (16mm sound motion) b&w. 25 min. 1943. Safe habits when working with cars, engines, hand brakes, switches and other equipment around tracks and yards. 14-a, {TV} 133-ac.

THE SAFE WAY IS THE RIGHT WAY (16mm sound motion) col. 20 min. 1946. The "right" and "wrong" technique is used to point out the rules of safety for yard, train and engine. The final scene presents a 12-point "Blueprint For Safety" which the Frisco Railroad commends to its employees. 129-ac.

SAFELY WE WORK (16mm sound motion or 35mm sound slidefilm) baw. 15 min. 1949. Shows railroaders how to get on and off moving cars and how to climb tank ladders. Discusses hand, power and air brakes. Illustrates safe walking between and across tracks as well as safe coupling and cutting of cars. (TV) NSC-ab (sound slidefilm only), 131-ac.

SAFETY AT SWITCH AND THROTTLE (16mm sound motion) col. 20 min. 1947.
A series of sequences acting out a number of posters published by the Southern Pacific Railroad to inform its employees of the hazards surrounding certain railroad practices. Deals mainly with braking and coupling. (TV) 128-ac.

SAFETY, FIRST AND ALWAYS (16mm sound motion) col. 22 min. 1948. The case history of a trainman on the Nickel Plate—how he sustains a serious injury and how he is finally converted to the principles of safety. Among the subjects covered are getting on and off moving cars, adjusting couplers, operating cutting levers, uncoupling air hoses, operating switches, close clearances, and riding on top of cars. At the end, he is back on the job and determined to make safety a habit. 134-a.

SAFETY IN BRIDGE AND BUILDING WORK (16mm sound motion) col. 26 min. 1951. Safe practices in the work of employees in railroad bridge and building departments. Features several types of activities. Gives instructions on the proper care and handling of tools and materials. Also discusses proper dress. (TV) 133-ac.

SHOP SAFETY (16mm sound motion) col. 15 min. 1950. Discusses various aspects of railroad shop safety—protective clothing use of power and hand tools, maintenance of turntables, diesel engines, otc. 241-ac.

SMALL BOAT DISASTER PREVENTION (16mm sound motion) baw. 10 min. 1951. Procedures necessary for safe operation of small naval craft as taught to men in the Navy. 154-b.

STOP, LOOK AND LIVE (16mm sound motion) col. 19 min. 1949. The story of a railroad switchman who was the victim of his own thoughtlessness. Defines right and wrong practices in train and engine service. (TV) 140-a.

STRUCK OR RUN OVER (16mm sound motion) col. 22 min. 1949. A graveyard with space for future use and the history of one of its inhabitants are used to show railroad workers the need for safe practices. (TV) 128-ac.

SUSPENDED SENTENCE (16mm sound motion) b&w. 23 min. 1949. Contends that a man, injured through his own negligence, would do it right the second time if given another chance. Five case histories are discussed to prove the point. Points out that we cannot expect a second chance, therefore must act safely in the first place. For railroad employees. (TV) 128-ac.

THE TENTH MAN (16mm sound motion) col. 18 min. 1952. Shows causes of accidents that happen to enginemen and trainmen on railroads. Gives safety instructions to be followed by both. (TV) 130-c, (TV) 140-a.

USE YOUR HEAD (16mm sound motion) col. 32 min. 1947. Deals with hazards of maintenance of way operations. Motor carwork, laying rails, and general track work discussed. Emphasizes use of safety shoes and eye protective devices. 135-ac.

THE VOICE OF THE BOOK (16mm or 35mm sound motion) baw. 40 min. 1952. Story of a retiring railroad safety man who wants to spread the principles of safety all over town. Shows various aspects of railroad safety and general safety for the public. For high school students and adults. (TV) 220-a.

WATCH YOUR STEP (16mm sound motion) col. 20 min. 1944. Seven cardinal rules of railroad safety. Illustrates correct practices in performance of duties. Animated charts and graphs show how man hours are lost each day through accidents. (TV) 140-a, (TV) 236-ac.

WE BUILD FOR SAFETY (16mm sound motion) col. 24 min. 1950. Though not obviously a safety film, operations carried out are part of safety on the job. Shows step-by-step process of laying rails. (TV) 128-ac.

WHY RISK YOUR LIFE? [16mm sound motion] b&w. 33 min. Revised 1950. Documents railroad practices which are hazardous if proper safety rules are not followed. Includes discussion of effects of weather conditions and factors influencing yard collisions. 136-a.

YARDS OF SAFETY (35mm sound slidefilm) b&w. 20 min. Covers 'little things' that cause four out of five railroad yardworker and servicemen accidents. Lists ten most important safety rules to be followed in that work. (TV) 72-a.

YOU'RE BEING BOARDED (16mm sound motion) b&w. 25 min. 1952. Shows commercial and pleasure boat operators what happens when their craft is inspected by U. S. Coast Guard boarding officials. Tells the minimum safety equipment required by law. (TV) 228-c.

29 RESTAURANTS

A DISHWASHER NAMED RED (16mm sound motion) baw or col. 10 min. 1951. Semi-comic demonstration of sanitary hand dishwashing in restaurants. 117-b, 188-ab.

DDT: See Section 13 for films on use.

KITCHEN AND DINING ROOM SAFETY (16mm sound motion) baw. 10 min. Covers common hazards in kitchens and dining rooms and demonstrates safe practices. Suitable for use in hotels, restaurants, coffee shops and tea rooms. 96-a.

TOMMY FORK AND HIS FOUNTAIN-EERS (35mm sound slidefilm) b&w. 10 min. Animated set of silverware teaches an inexperienced fountain girl health and safety rules for dining room and fountain personnel. 84-a.

30 RETAIL STORES

FIRE IS YOUR RESPONSIBILITY (35mm sound slidefilm) b&w. 10 min. Shows retail store employees what can be done to prevent fires, pointing out rules covering such common hazards as smoking, improper wiring, poor housekeeping and improper trash disposal. 84-a, 210-a.

TROUBLE IN STORE (35mm sound slidefilm) b&w. 15 min. 1950. Common causes of accidents in mercantile establishments. Safety rules to follow in eliminating them. 103-c.

31 TEXTILES

AS OTHERS SEE US [16mm sound motion] b&w. 19 min. 1951. Explains the special need for good safety programs in textile industry. Points out numerous machines and operations which are hazardous. Shows how program can be introduced. (TV) 155-ab.

WOYEN WITH SAFETY (35mm sound slidefilm) b&w. 15 min. 1944. Deals with accidents in textile mills. Shows improper material handling, machine hazards, compressed air accidents, cuts from knives and scissors. Stresses importance of immediate first aid. (TV) NSC-ab.

:32 CHEMICALS AND PLASTICS

HANDLE WITH CARE (16mm sound motion) b&w. 20 min. 1942. Manufacturing methods in a Canadian explosives plant, with emphasis on the need for continual vigilance. Safety devices and rules explained. 45-b. 106-b.

PLAN TO LIVE (16mm sound motion) baw. 17 min. 1952. Directed to chemical plants. Describes the chain of safety responsibility that links building superintendent, research chemist, and chemical production worker. Points out the dangers to individual, plant personnel, and community from a broken link in this chain caused by poor planning or negligence. 109-ab.

SAFE OPERATION OF THE LABORATORY TWO ROLL MILL (35mm sound slidefilm) baw. 11 min. 1951. Description of the type of safety instruction given to Two Roll Mill workers in the plastic industry. 163-c.

LABORATORIES: RESEARCH AND MANUFACTURING

DON'T BE A JERK!—Coronet Safety Education Series (35mm silent slidefilm) b&w. 47 frames. 1948. Gives the correct method of handling electric equipment in the home and in the laboratory. Shows safe practices when using glassware in the chemical laboratory. For junior and senior high schools. NSC-a.

GS-I MEETS THE LABORATORY—Basic Laboratory Training For Nonprofessional Workers Series (35mm sound slidefilm) col. II min. 1952. How the beginning laboratory worker can avoid mistakes which might endanger himself, the equipment and research results. 91-c.

THE HANDLING AND USE OF GLASS-WARE—Basic Laboratory Training For Non-professional Workers Series (35mm sound slidefilm) col. 8 min. 1952. Safe practices in handling laboratory glasswere. 91-c.

INFECTIOUS HAZARDS OF BACTERIO-LOGICAL TECHNIQUES SERIES: See Section 22.

LABORATORY GLASSWARE (35mm sound slidefilm) b&w. 10 min. 1945. The majority of laboratory accidents are shown to be caused by improper or careless han-

dling of glass equipment. Proper precautions to observe in handling glass are demonstrated. (TV) NSC-ab.

SAFE PRACTICES WITH LABORATORY AND ELECTRICAL EQUIPMENT: See Section 14.

SAFETY IN THE CHEMISTRY LABORA-TORY (16mm sound motion) b&w. 15 min. 1949. Demonstrates safe practices used by professional chemists in the laboratory. For high school and college students. 109-ab, 110-b, 112-b, 115-b, 124-b, 126-b, 214-b, 217-b.

SAFETY IN THE LABORATORY (35mm silent slidefilm) b&w. 53 frames. 1947. Illustrates hezards found in the school laboratory and the safe practices which must be followed to prevent accidents. Handdrawn frames are used. For elementary and secondary school students. 98-a.

PARTII



MOTOR TRANSPORTATION

10 TRUCK

A PROFESSIONAL PORTRAIT (16mm sound motion) b&w. 22 min. 1951. Collision of a passenger car and truck—a newspaper reporter ready to "blast" the trucking industry—a thoughtful city editor. These set the stage for an examination of the safety training truck drivers receive. (TV) 60-ac, 112-b, 127-b, 137-b, 223-b.

AWARD TO THE WISE (35mm sound slidefilm) baw. 15 min. 1949. Shows importance of good attitude on part of truck driver to insure safety on the road. Proper attitude can earn awards and improper attitude can cause death and tragedy. 103-c.

CAUTION AT THE CROSSROADS (16mm sound motion or 35mm sound slidefilm) b&w. 11 min. 1950. Intersection accidents and how to evoid them. For commercial vehicle drivers. NSC-b, 137-c, 150-ab, {TV} 151-c.

CHAMPIONS AT THE WHEEL (16mm sound motion) col. 17 min. 1951. Faulty driving habits of some professional drivers. Methods of correcting such habits. For truck fleet operating men and drivers. 2-c.

CHECK WELL BEFORE USING (16mm sound motion) baw. 10 min. Emphasizes conservation during wartime for commercial vehicle operators. Shows proper methods to use before leaving garage in checking important parts of a truck. 96-a.

DANGER IN REVERSE (16mm sound motion or 35mm sound slidefilm) b&w. 8 min. 1952. Accent on backing accidents, with three simple steps for drivers to follow to avoid vehicle and property damage, and injury to pedestrians. Directed to commercial vehicle drivers. NSC-b, 137-c, 150-ab, (TV) 151-c.

DARK DAZE (16mm sound motion or 35mm sound slidefilm) b&w. 10 min. 1953. Illustrates effect of proper and improper eating and sleeping habits on night drivers of commercial vehicles. NSC-b, 150-ab, (TV) 151-c.

DEFENSIVE DRIVING (35mm sound slidefilm) baw. 20 min. 1944. The principles of defensive driving—keeping equipment in a safe condition, following at a safe distance, slow stopping, using hand signals, braking safely, driving courteously. For commercial vehicle drivers. (TV) NSC-ab.

FIRE POWER: See Section 27.

HELL WOULDN'T HAVE HIM (16mm sound motion) b&w. 30 min. 1936. Designed to show truck drivers the results of carelessness on the highways. Negative approach used throughout. 31-ac.

MORIZONS UNLIMITED (16mm sound motion) b&w. 17 min. 1948. The importance of safe commercial vehicle transportation on the nation's progress. Also, the problems presented by today's highways. (TV) 60-ac, 117-b, 137-c, 223-b.

IF IT HAPPENS (35mm sound slidefilm) b&w. 20 min. 1944. What the truck driver should do in case of an accident. Points out he should (1) keep the accident from getting worse, (2) get and record all facts. (3) get back on the job as soon as possible. Many other tips given. (TV) NSC-ab.

INTRODUCTION TO PREVENTIVE MAINTENANCE [16mm sound motion] b&w. 12 min. 1945. The importance of preventive maintenance in truck operations. Typical preventive check maintenance illustrated. 109-b, 172-a.

KNIGHTS ON THE HIGHWAY (16mm sound motion) baw. 10 min. 1938. Deals with commercial vehicle operations in interstate commerce. Stresses safety in night driving. 30-b, 47-a, 49-b, 108-b, 111-b.

LOOKING FOR TROUBLE (16mm sound motion or 35mm sound slidefilm) b&w. 10 min. 1952. Shows student commercial vehicle drivers how to check their trucks for trouble before each trip. NSC-b, 150-eb, [TV] 151-c.

THE MAN BEHIND THE WHEEL (35mm sound slidefilm) b&w. 25 min. 1941. Demonstrates sefest and most efficient operation of tractor-trailer units. Designed primarily to assist new drivers in learning the fundamentals. 38-c, 137-c.

MIND YOUR MANNERS (16mm sound motion or 35mm sound slidefilm) b&w. 10 min. 1953. Lessons in driver courtesy for commercial vehicle drivers. NSC-b, 150-ab, (TV) 151-c. OFF THE SPOT (35mm sound slidefilm) col. 15 min. 1950. Certoon treatment of a commercial vehicle driver's experience in traffic. General approach to traffic problems for the truck driver. 171-c.

OPERATING HEAVY DUTY TRUCKS SAFELY: See Section 20.

PILOTS OF THE HIGHWAY (35mm sound slidefilm) baw. 20 min. 1944. Directed to commercial vehicle drivers. Moves from first interview, through training program to time driver becomes full-fledged 'pilot of the highway.' Tells of many safe practices driver must learn. (TV) NSC-ab.

PIPELINE ON WHEELS (16mm sound motion) col. 28 min. 1951. Shows safety factors in fuel-tank truck operations from the driver's point of view. Covers safe construction of tank trucks and safe driving practices on the highway. 32-ac.

PROFESSIONAL SAFE DRIVING (35mm sound slidefilm) b&w. 16 min. 1940. Trains drivers in the care and safe operation of tractor-trailer rigs. Some points touched are checking brakes, lights, tires, loading, fire extinguishers, fuses, pot torches, and road courtesy. 25-a.

THE PROFESSIONAL SAFE DRIVING SERIES (16mm sound motion) b&w or col. 10 min. each. 1953. Series of five films for bus, truck and taxicab drivers. Narrated by Wilbur Shaw, three-time winner and now president of the Indianapolis Motor Speedway Corporation. Sports theme used throughout. Big name baseball, bowling and golf stars contrast the fine points of their sports with the skill and finesse the "pro" commercial vehicle drivers must rely on to maintain their safety records. Available singly or as a series. See separate listing for detailed descriptions. Titles: Skill Is Your Business; Ninety-Day Flash; The Champ Becomes Deaf And Blind; Watch Your Handicap; Take A Look At The Odds. [TV] NSC-ab.

SKILL IS YOUR BUSINESS—The Professional Safe Driving Series (16mm sound motion) bằw or col. 10 min. 1953. Show what it takes to maintain professional driving skill day-after-day. Explains how to keep this skill on tap to meet those unexpected situations which may occur during the routine driving of a truck, bus or taxicab. (TV) NSC-ab.

NINETY-DAY FLASH—The Professional Safe Driving Series (16mm sound motion) baw or col. 10 min. 1953. Shows how small driving errors, if repeated frequently, can lead to faulty habits and serious accidents. Directed to the professional driver. (TV) NSC-ab.

THE CHAMP BECOMES DEAF AND BLIND—The Professional Safe Driving Series [16mm sound motion] baw or col. 10 min. 1953. Compares the ability of pro golfers to concentrate completely on their game, shutting out all distractions, to the prodriver's ability to concentrate on his work. (TV) NSC-ab.

WATCH YOUR HANDICAP—The Professional Safe Driving Series (16mm sound motion) baw or col. 10 min. 1953. Directed to the truck, bus and taxicab driver. Shows how some drivers, like some professions.

sional bowlers, handicap themselves through lack of proper rest, food, and health habits. (TV) NSC-ab.

TAKE A LOOK AT THE ODDS—The Professional Safe Driving Series (16mm sound motion) b&w or col. 10 min. 1953. Illustrates how the odds are always in favor of the driver who plays it safe. Shows that the right attitude towards safety is the best insurance against accidents. Directed to the truck, bus and taxicab driver. (TV) NSC-ab.

P.U.D. DRIVER WINS AGAIN (35mm sound slidefilm) baw. 20 min. 1945. A typical day in the life of a pick-up and delivery driver. How he resists temptation, keeps within the proper speed limits, signals for stops and turns, and turns from the correct lanes. (TV) NSC-ab.

SINGING WHEELS (16mm sound motion) b&w. 23 min. Dedicated to the truck drivers of America. Fictures the part played by the men and machines of the motor transport system in construction work. Shows importance of a physical examination in selection of drivers and illustrates methods of testing drivers in rules of the road. 109-b, 116-b.

THE SKILL BEHIND THE MAN (35mm sound slidefilm) baw. 25 min. 1941. Sequel to "Man Behind the Wheel." Deals with advanced fundamentals of tractor-trailer driving. 38-c, 137-c.

SMOOTH OPERATION (16mm sound motion or 35mm sound slidefilm) b&w. 16 min. 1951. Concerns the endless distractions and delays of city driving. Shows how the traffic fighter makes driving tougher on himself. For truck drivers. (TV) NSC-ab.

SPLIT-SECOND SURVIVAL (16mm sound motion or 35mm sound slidefilm) b&w. 10 min. 1953. When an accident seems imminent, a skilled driver can often prevent it by reacting properly to the situation. Shows commercial vehicle drivers what to do in such emergencies. NSC-b, 150-ab, (TV) 151-c.

THEY DRIVE IN SAFETY (16mm sound motion) b&w. 12 min. Shows training requirements for truck drivers. Illustrates safe practices. NSC-b.

TOO CLOSE FOR COMFORT (16mm sound motion or 35mm sound slidefilm) b&w. 8 min. 1952. Directed to truck drivers. Explains how tailgating results in accidents and causes public enmity toward the industry. NSC-b, 137-c, 150-ab, (TV) 151-c.

TOO FAST FOR CONDITIONS (16mm sound motion or 35mm sound slidefilm) b&w. 9 min. 1952. Directed to truck drivers. Clears up the widely misunderstood subject of speed by showing how unsafe speeds may often be below the legal limit. NSC-b, 137-c, 150-ab, (TV) 151-c.

THE TRAGIC ROAD TO SAFETY (35mm sound slidefilm) b.&w. 27 min. 1948. For drivers of tractor-trailer rigs, but applicable generally. Story treatment of a veteran driver giving sefe driving hints to young, inexperienced driver. Raview trailer follows. 25-a, 137-c.

THE TRUCK AND THE DRIVER (16mm sound motion) b&w. 10 min. Illustrates safe driving practices for truck drivers in cities and on highways. Also, discusses truck maintenance. NSC-b.

WHAT HAPPENED? (16mm sound motion or 35mm sound slidefilm) baw, 10 min, 1952. Directed to truck drivers. Trains drivers on proper procedure to follow after an accident. Stresses necessity of getting all facts whether accident is minor or major one. NSC-b, 150-ab, (TV) 151-c.

WILLIE'S FISH STORY (35mm sound slidefilm) col. 15 min. 1951. Directed to truck drivers. Certoon story of events leading to and following accident involving a truck. 148-b.

WITH CARE (16mm sound motion) baw. It min. 1939. A private motorist learns from a truck driver that commercial operators promote safety on the highway. Safe practices in truck driving illustrated. 30-b, 49-b.

WRONG SIDE: SUICIDE (16mm sound motion or 35mm sound slidefilm) b&w. 10 min. 1952. Directed to commercial vehicle drivers. Shows importance of keeping to the right side of the road. Illustrates training of drivers to stay on their side of center line in highway driving. NSC-b, 137-c, 150-ab, (TV) 151-c.

YOU'RE DRIVING NINETY HORSES (Idmm sound motion) col. 26 min. 1949. Directed to truck drivers. Shows driver he is driving ninety horse power vehicle which in careless hands can kill. Human failure is stressed as cause of most accidents. (TV) 10-c.

41 TRANSIT

BLACK RAIL (16mm silent motion) b&w. 9 min. 1949. The right method to use in stopping street cers. Use of sand on the rail. (TV) 173-c.

BUS DRIVER (16mm sound motion) baw. 10 min. Hazards the bus driver meets on his daily run. Guide to safe practices on the highway. 125-b, 126-b.

BUS OPERATION: THE OPERATOR AND SAFETY (16mm sound motion) b&w. 19 min. 1944. A discussion of safety measures for city bus operators. Safety checks, safe following distances, passing, and other points clarified. NSC-b, (TV) 11-b, 49-b, 126-b, 172-a.

GENTLEMEN OF THE HIGHWAY (16mm sound motion) baw. 14 min. 1950. Illustrates the safe driving habits bus drivers must learn, and the training program they undergo to acquire them. 2-c.

HUSTLE AND BUSTLE (16mm sound motion) b&w. 10 min. Factors in safe bus transportation—checking of vehicles, stopping, starting, following distances, safe speeds, turns, pedestrians, courtesy and reporting of hazards. 96-a.

IT'S A 3IG JOB (16mm sound motion) baw. 25 min. An orientation film for streetcar and bus employees. Shows the prospective operator a preview of his job—what it calls for and why. NSC-b.

THE OPERATOR AND HIS JOB (15mm sound motion) baw. 12 min. 1944. Three responsibilities of the bus operator shown: (1) safety of pessengers and people on the street, (2) maintenance of schedules, (3) courteous, friendly and helpful attitude toward passengers. 109-b, 126-b, 172-a.

THE PROFESSIONAL SAFE DRIVING SERIES: See Section 40.

42 TAXICAB

THE PROFESSIONAL SAFE DRIVING SERIES: See Section 40.

SAFETY PAYS DOLLARS (16mm sound motion) col. 12 min. 1951. Shows proper procedure to use in establishing safe driving habits among cab drivers. Film uses cartoon treatment. (TV) 144-ab.

43 DRIVER SALESMAN

GRADE "A" DRIVERS (35mm sound slidefilm) b&w. 15 min. 1951. The role of safety in the dairy driver's overall service to the community. 103-c.

HERE'S THE DOPE (35mm sound slidefilm) b&w. 15 min. Revised 1952. The story of a smart-aleck route salesman who, despite his training, decides to do things his own way. He is shown violating safety rules until he finally lands in the hospital. The importance of safety and courtesy on public goodwill is emphasized. 103-c.

THE PROFESSIONAL SAFE DRIVING SERIES: See Section 40.

STOP AND GO SELLING (35mm sound slidefilm) b&w. 15 min. 1939. For dairy deliverymen. Pictures deliveryman who concentrates all his efforts on selling and disregards safety in driving his vehicle 25-a.

44 SCHOOL BUS

PRICELESS CARGO (16mm sound motion) b&w. 18 min. A non-commercial safety story dedicated to safe transportation of children to and from school and urging action to eliminate hazardous road and traffic conditions. 83-c, 120-b, 137-c.

SAFETY ON THE SCHOOL BUS (16mm sound motion) b&w. 11 min. 1951. Safe practices for children riding the school bus. Methods of getting into the bus and getting out, emphasized. For elementary school children. 48-ab. 66-b, 102-ab, 107-b, 115-b, 119-b, 121-b, 126-b, 127-b, (TV) 208-b, 215-b.

THE SCHOOL BUS AND YOU (16mm sound motion) b&w. 10 min. Designed to teach safety and courtesy to children who are starting their daily trips to and from school by school bus. Elementary school level. (TV) 70-ab.

SCHOOL BUS OPERATION: PART 1, BUS CARE AND MAINTENANCE (16mm sound motion) b&w. 13 min. 1945. Shows importance of daily and weekly maintenance checks of school buses. Illustrates methods of correct checking. 49-b, 109-b, 112-b, 126-b, 137-c, 172-a.

SCHOOL BUS OPERATION: PART 2, PASSENGERS, DRIVING HAZARDS, SAFETY (16mm sound motion) b&w. 14 min. 1945. Emphasis is placed on the driver's responsibility for safety of his passengers. Safe driving habits and safe practices in handling children while getting on and off the bus are shown through illustrations of typical situations. 49-b, 109-b, 112-b, 120-b, 126-b, 137-c, 172-a.

SCHOOL BUS SAFETY (16mm sound motion) baw or col. 18 min. 1950. Discusses the safety factors involved in transporting children to and from school. Acquaints bus drivers with correct maintenance and operational procedures, and highlights the correct use of safety patrols. 108-b, (TV) 149-ab.

SCHOOL BUS SAFETY (35mm silent slidefilm) b&w. 64 frames. 1952. Rules of safety to be observed by elementary and secondary school students who are dependent upon school bus transportation. 98-a.

PART III



TRAFFIC

50 DRIVER ATTITUDES

A LIFETIME GUARANTEE (16mm or 35mm sound motion) baw. I min. 1951. A trailer based on a major event in two lives—Dad handing over the car keys to his teen-age child for the first time. Shows why parents must set a good example for their children in traffic. (TV) NSC-a.

AND THEN THERE WERE FOUR (16mm sound motion) baw. 20 min. 1950. Points out there is no such thing as a minor traffic violation, and appeals for strict observance of traffic laws. Strong emotional appeal for good driving. 55-c, 107-b, 110-b, (TV) 138-ac, 223-b.

BORROWED POWER (16mm sound motion) baw or col. 19 min. 1952. A teenager, who thought he was a good driver, finds he has been using "borrowed power" by letting the car rule him. [TV] 5-a, 108-b, 127-b, 137-c, 217-b.

THE CHANCE TO LOSE (16mm sound or silent motion) baw. 10 min. Illustrates the tremendous chances taken by some drivers.

Makes comparisons between taking such chances and the various types of gambling. NSC-b, 48-bc, 107-b, 116-b, 118-b, 119-b, 120-b, 121-b, 124-b, 125-b, 126-b.

DAY IN COURT: See Section 51.

DEADLY ODDS (16mm or 35mm sound motion) b&w. I min. 1950. The story of a guy named Jim, who gambled his life against deadly odds. Positive proof that chances aren't worth taking in traffic. A film trailer. (TV) NSC-a.

DESTINATION DEATH (35mm sound slidefilm) b&w. 15 min. 1947. Proper attitude is shown to be the most important single factor in traffic safety. By a series of events in the life of the principal character, an accident is seen to be in the making. Includes a sequence on driver training, 103-c.

DEVIL TAKE US: See Section 65.

DRIVEN TO KILL (16mm or 35mm sound motion) b&w. 10 min. 1948. Stresses the importance of correct driver attitude. Shows the tragic result of impatience and taking chances at the wheel. Narrated by Lowell Thomas. 11-a, 137-c, 212-a.

DRIVER FITNESS AND ATTITUDE (35mm silent slidefilm) b&w. 59 frames. How a driver's attitude and physical and mental capabilities affect driving performance. 39-a, 137-c.

FATAL SECONDS (16mm sound motion) baw. 10 min. 1950. A careful, courteous driver takes one thoughtless chance on the highway and tragedy results. Emphasizes the need for proper attitude and good mainners in driving, and points out that one must always be on the alert to avoid "that eans chance which may be the last one." (TV) 2-c, 223-b.

GUILTY (16mm sound motion) b&w. 30 min. Story of a young man who disregards warnings to drive carefully and of the tragic results of his thoughtlessness. 22-a.

HIGHWAY MANIA (16mm sound motion) b&w. 20 min. 1946. Interviews of traffic authorities by Lowell Thomas. Dangerous driving habits illustrated and correct methods shown. Sponsored by the New Jersey State Highway Commission. 27-bc, 72-bc, 109-b, 126-b, 170-d, 189-ab.

HIT AND RUN DRIVER: See Section 51.

HIGHWAY SAFETY ZOO SERIES (16mm or 35mm sound motion) b&w. 27 sec. each, 40 sec. each with signature trailer. 1952. A series of six trailers comparing unsafe drivers with zoo animals. Each appeals for better driving attitudes by showing what happens to such people on the highway. Titles: The Highway Ostrich, The Highway Peacock, The Highway Jackass, The Highway Peacock, The Highway Jackass, The Highway Chimpanzee. Available as a series or individually. (TV) 226-b, (TV) 236-b.

IN THE DRIVER'S SEAT [16mm sound motion] b&w. 18 min. 1946. Discusses solutions to many present day traffic problems. Shows that teen-agers, with one of the worst driving records of all age groups, can be helped to become safe and sportsmanlike drivers. For adult and high school levels. (TV) 44-ac.

IT'S WANTON MURDER (16mm or 35mm sound motion) baw. 10 min. 1946. Shows the tragedy carelessness in driving brought to one family. 11-a, 137-c.

THE JAY-WALKER: See Section 61.

LAST DATE (16mm or 35mm sound motion) b&w. 20 min. 1950. Story of the events leading up to a tragic accident in the lives of some teen-age drivers. For high school and adult audiences. (TV) 51-ac, 87-c, 108-b, 110-b, 121-b, 126-b, 127-b, 137-c.

THE MAN AT THE WHEEL (16mm sound motion) b&w. 12 min. A "March of Time" film singling out for special condemnation the driver who is always taking chances. NSC-b. 115-b.

THE MIRACLE OF CHRISTMAS (16mm sound motion) bow or col. 12 min. 1948. Safety for all will come when we learn to carry the Christmas spirit into every aspect of our lives. Christmas revellers under the influence of holiday "spirits" demonstrate how not to celebrate Christmas. Designed to impress drivers of the need for adopting the proper community spirit. 137-c, (TV) 204-ab.

MOTOR MANIA (35mm sound motion) b&w. 7 min. 1951. Wrong attitude on the part of a motorist can make him act like a maniac when he is behind the wheel. 170-d.

ONCE UPON A TIME (16mm sound motion) col. 10 min. 1934. Animated cartoon, with fairy tale setting, showing what happens when carelessness and discourtesy motivate motorists. Familiar characters, such as the Mad Hatter, Simple Simon, and Jack the Giant Killer are shown in various safety situations. For high school students. (TV) 53-c, 106-b, 108-b, 110-b, 111-b, 113-b, 120-b, 125-b.

PARADE OF CHAMPIONS (16mm sound motion) b&w. 13 min. Interviewing Grantland Rice, a high school reporter is told that the all-star driver is like the all-star sportsman and must observe the same rules of fair play and safety. 118-b.

PATTERN FOR TRAGEDY (35mm sound slidefilm) b&w. 15 min. 1951. Tragic and dramatic story of a father who, through carelessness while driving, is responsible for the death of his wife and son. He learns too late about safe driving habits. Points out responsibility all drivers have to their families and selves. 103-c.

PRACTICE MAKES PERFECT DRIVERS: See Section 65.

ROUGH RIDERS (35mm sound slidefilm) b&w. 15 min. 1950. How foolish habits we have create dangerous conditions. Illustrates, through the use of cartoons, that we can cause serious accidents by losing control of our emotions. 103-c.

SCREWDRIVERS AND SCREWJAYS (16mm sound motion) baw. 12 min. Revised 1949. Features Lew Lahr, movie comedian, as a screwy driver and Don Wilson, radio announcer, as a screwy jaywalker. Amusing illustrations of right and wrong practices. NSC-b, 77-c, 105-b, 106-b, 108-b, 112-b, 113-b, 115-b, 121-b, 125-b, 126-b, 127-b, 215-b, 217-b.

TEEN-AGE DRIVER'S ATTITUDE SCHOOL: See Section 57.

THAT THEY MAY LIVE (16mm sound motion) baw. 12 min. 1947. Dramatic presentation showing that safe driving practices save lives and dangerous driving leads to death. Appeals to parents and schools to teach young people to drive safely. For both adult and high school audiences. 138-c.

VACATION VICTIMS (16mm or 35mm sound motion) b&w. I min. 1951. This trailer shows how a smooth, winding highway can be a deadly trap for any inattentive holiday driver. It gives proof that driving takes a sharp eye and alert mind. (TV) NSC-a.

WE DRIVERS (16mm sound or silent motion) baw or col. 10 min. 1950. Cartoon characters, "Sensible Sam" and "Reckless Rudolph" give conflicting advice to a driver. Emphasizes importance of safe practices. 39-c, 108-b, 117-b, 127-b.

WORTH THE RISK (16mm sound motion) b&w. 10 min. 1948. Disproves theory that automobile accidents only happen to the other fellow. Shows accidents happening to people who thought they were immune. (TV) 20-ab.

X MARKS THE SPOT (16mm sound motion) b&w. 20 min. Revised 1951. Story relating traffic experiences of somewhat whimsical driver and a pedestrian. NSC-b, 147-ac.

TRAFFIC LAW OBSERVANCE AND EN-FORCEMENT; TRAFFIC COURTS

ACCIDENT BEHAVIOR: See Section 65.

AND THEN THERE WERE FOUR: See Section 50.

ARTERIES OF THE CITY: See Section 65.

COMMAND PERFORMANCE (16mm or 35mm sound motion) baw. I min. 1951. Mac learned the hard way about traffic laws and their importance. But he was lucky. It cost him only time and money. A trailer of general interest. (TV) NSC-a.

DAY IN COURT (16mm sound motion) baw or col. 29 min. 1951. A day's calendar at a traffic court. Five typical offenders, nice people in other ways but menaces to society when behind the wheel, learn courteous driving. (TV) 46-a, 55-c, 143-a.

DRUNK DRIVING: See Section 60.

HIGHWAY MANIA: See Section 65.

HIT AND RUN DRIVER (16mm sound motion) baw. 20 min. A young motorist tries to evade responsibility for running down and seriously injuring two pedestrians on a highway. A study of the hit and run driver. 108-b, 115-b, 118-b, 126-b, 137-b.

IN CASE OF ACCIDENT: See Section 57.

INTERSECTION CONTROLS: See Section 57.

LOOK, LISTEN AND LIVE: See Section 56.

THE MAN BEHIND THE STAR (35mm sound slidefilm) b&w. 20 min. 1946. Introduces the traffic policeman—the man behind the star. Tells something of his responsibilities, background and training for traffic control. Directed to the layman. (TV) 77-c.

MAN ON HORSEBACK (16mm sound motion) b&w. 10 min. 1949. Describes training of police horses for work in today's heavy traffic. 39-c.

MARY JONES GOES TO COURT (35mm sound slidefilm) baw. 20 min. 1946. The work of the police department in preventing accidents. The parts engineering, education and enforcement play in the effort. Directed to the layman. (TV) NSC-ac.

ON RECORD (35mm sound slidefilm) baw. 20 min. 1946. Shows procedures for preparing and filing a written report of automobile accidents. Explains use of such reports. (TV) NSC-ac.

PARKING: See Section 57.

THE POLICEMAN (16mm sound motion) b&w. 10 min. 1940. Follows typical city patrolman through one of his regular shifts of duty. Use of two-way radio by motorcycles and patrol cars explained. Lessons in rescue work and pedestrian and vehicular traffic safety also developed. (TV) 37-ab, 109-b, 114-b, 116-b, 120-b, 122-b.

RECKLESS OR WRECKLESS (16mm sound motion) col. 10 min. 1950. Work of state police patrols in curtailing highway fatalities. (TV) 169-ac.

STATE TROOPER (16mm sound motion) baw. 15 min. Shows use of modern scientific aids in State Police Departments. How such aids improve the performance of the trooper. 189-ab.

TEEN-AGE DRIVER'S ATTITUDE SCHOOL: See Section 57.

TESTING THE DRINKING DRIVER: See Section 60.

YOUR PERMIT TO DRIVE: See Section 57.

52

ORGANIZATION FOR TRAFFIC SAFETY; PUBLIC SUPPORT OF TRAFFIC PRO-GRAMS

A CLOSED BOOK: See Section 88.

BETTER AND SAFER HIGHWAYS (16mm sound motion) b&w. 7 min. 1952. Describes "Project Adequate Roads," supported by 40 national organizations. Explains attempt to reduce ordeal and danger of today's driving by improving roads and smashing traffic bottlenecks throughout the country. Features Harvey Firestone, Jr. (TV) 12-c.

THE CASE OF TOMMY TUCKER (16mm sound motion) b&w. 23 min. A community's interest in safety is aroused by one bad traffic accident. How the community goes about improving its traffic problem is shown. 36-c, (TV) 55-ac, 120-b, 127-b, 137-c.

IT'S UP TO YOU (lamm sound motion) col. 23 min. 1950. Shows how the community, through intensive educational programs in the schools and through the cooperation of civil government and the police force, can take action to curtail highway accidents. 107-b.

ON YOUR TOES: See Section 61.

THE SAFEST WAY [16mm sound motion] baw or col. 19 min. 1948. Community planning of safe walking routes for young school children. Demonstrates that proper planning cuts down on child pedestrian accidents. (TV) 5-a, 36-c, 107-b, 109-b, 112-b, 115-b, 120-b, 124-b, 127-b.

SAFETY ON THE HIGHWAY (16mm sound motion) baw. 20 min. Brief review of background and follow-up on the writing of "And Sudden Death" by J. C. Furnas for Reader's Digest. The results of the article are shown. 108-b, 111-b.

TRAFFIC JAM AHEAD: See Section 64.

THE WEAKEST LINK: See Section 57.

WHO. ME? (16mm sound motion) b&w or col. 25 min. 1952. Review of the traffic problems of a growing city and the part that the local Safety Council can play in public education. NSC-c, 235-a.

MOTOR MANNERS IDRIVER COUR-

A TURNABOUT MAN (16mm sound motion) b&w. 8 min. 1937. Amusing portrayal of poor motor manners on the highway. Proves bad manners in driving are dangerous. 30-b, 47-a, 49-b, 137-c.

DAY IN COURT: See Section 51.

DRIVEN TO DESTRUCTION (16mm or 35mm sound motion) baw. [min. 1951. This trailer introduces the thoughtless and discourteous driver, who prods usually careful drivers into taking dangerous chances. (TV) NSC-a.

FIFTY-YARD LINE (16mm sound motion) col. 12 min. 1950. Stresses the value of courtesy in reducing automobile accidents. Shows that one discourteous chance can mean the difference between life and death. (TV) 169-ac.

THE MIRACLE OF CHRISTMAS: See Section 50.

ONE GOOD TURN (16mm or 35mm sound motion) b&w. I min. 1949. A trailer showing what happened when a good turn in traffic was ignored—plus a reminder of how easily the disaster might have been averted. (TV) NSC-a.

THE ROAD HOG (16mm or 35mm sound motion) b&w. I min. 1949. How a road hog's discourtesy prepared conditions for manslaughter—a warning to road hogs that discourtesy to others is a disservice to one-self. A film trailer. (TV) NSC-a.

54 SPEED

DEATH ON THE HIGHWAY: See Section 60.

HEART TO HEART (35mm sound motion) b&w. 20 min. 1949. How excessive speed in living and driving has become one of America's great curses. An appeal to slow down and save lives. For theater use only. 162-ab.

IMPACT (16mm or 35mm sound motion) b&w. 1 min. 1951. The hezerds of high speed. A 60 m.p.h. smashup is compared with a 20 m.p.h. accident. A terse warning to all motorists in the form of a trailer. (TV) NSC-a.

KILLER ON THE HIGHWAY: See Section 65.

THE NIGHT FLYER: See Section 58.

PARDON OUR SPEED: See Section 88.

REMEMBER JIMMY (16mm sound or silent motion) baw. 10 min. A family is forced into an accident by a careless driver. The injured are taken to a hospital and the driver realizes the tragic consequences of speeding. 107-b, 111-b, 121-b.

SHORT STOPS: See Section 65.

SPEED AND REFLEXES (16mm sound motion) b&w. 11 min. 1950. The relationship between the driver's reflexes and stopping distances at different speeds. [TV] 70-ab, 108-b, 112-b, 113-b, 121-b, 126-b, 137-b.

55 VEHICLE MAINTENANCE

CARE OF THE CAR — Driver Education Series (16mm sound motion) b&w. 10 min. 1951. Shows how to check automobile for trouble before it begins. Covers inspection of brakes, steering wheel, engine, gas and oil, tires, and making of simple repairs. Suitable for high school and adult audiences. 108-b, 122-b, (TV) 159-ac.

CURVE CONTROL: See Section 57.

DON'T CROWD YOUR LUCK (16mm or 35mm sound motion) baw. 1 min. 1950.

A trailer designed to remind the general public of an old safety formula: Today's inspection of your car is tomorrow's protection—for your life as well as your good times. (TV) NSC-a.

DRIVE ECONOMICALLY [16mm sound motion] b&w. 20 min. 1950. Shows that by careful maintenance and inspection a driver can save on gas, oil and commodities used in a car. A self-interest approach to proper automobile maintenance. 39-a, 112-b, 119-b, 120-b, 137-c, 223-b.

MEEPING YOUR CAR FIT (16mm sound motion) baw. 15 min. 1945. Explains why weekly check-up on tires, battery, engine oil, and radiator is necessary. Why a car should be lubricated regularly and the engine oil and gear lubricants changed. Why oil filter equipment should be replaced regularly and why the cooling system should be inspected periodically. 109-b, 112-b, 137-c, 172-a.

PERIODIC CHECKUP (16mm sound motion) baw, 18 min. 1944. Necessary steps in periodic checkup on cer to determine whether car is sound and safe. Covers tune-up of engine, inspecting steering system, servicing brakes, and inspecting chassis. 49-b, 109-b, 112-b, 137-c.

PREVENTIVE MAINTENANCE (35mm silent slidefilm) b&w. 89 frames. Shows the new driver the need for periodic inspection and servicing of his car. For high school and adult drivers. 39-a, 137-c.

SAFETY FACTORS—Automotive Mechanics No. 1 Series (35mm silent slidefilm) b&w. 77 frames. 1940. Maintenance of brakes, steering gear, horn, lights and windshield wiper demonstrated. Points out that a safe, careful driver is the most important sefety factor of any vehicle. 47-a.

TIME TO LIVE (16mm or 35mm sound motion) b&w. 1 min. 1951. Trailer tells story of little Johnny, who forgot to check the brakes on his pushmobile and crashed into a tree. His father forgot the same thing on his car. He died. (TV) NSC-a.

WHERE MILEAGE BEGINS (16mm sound motion) b&w. 20 min. Animated description of parts of automobile. Shows what makes car run. 137-c.

THE WHY OF AUTOMOBILE LUBRICA-TION (16mm sound motion) col. 24 min. 1952. Shows how lubrication of car insures safe operation. Illustrates cost and danger of neglect. 89-c.

SIGNS OF LIFE ITRAFFIC SIGNS AND SIGNALS!

LOOK, LISTEN AND LIVE (16mm sound motion) baw or col. 26 min. 1949. Highway grade crossing accidents and methods of combating them. The story of a family struck by a train on the way to a picnic. Considerable footage devoted to the training of the highway patrolman and his contribution to the prevention of accidents. Film also bears the title, "Stop On The Red Signal." NSC-b, 107-b, (TV) 130-c, (TV)

READ, HEED, AND LIVE (16mm sound motion) b&w. 9 min. 1952. Teaches the meaning of different-shaped traffic signs and road markers. Urges awareness of the meaning of such signs and obedience to their warnings. For both adult and high school audiences. 188-a.

SEEING GREEN (16mm sound motion) b&w. 11 min. 1938. Discusses the wide variety of traffic signals now in use and explains the need for more standardization. Also explains how a traffic light works. 30-b, 47-a, 49-b.

SIGN LANGUAGE (16mm or 35mm sound motion) b&w. I min. 1950. A trailer which reminds everyone to obey all "signs of life," the traffic signs and signals that tell us all how to stay alive. (TV) NSC-a.

SIGNS OF LIFE (35mm sound slidefilm) b&w. 20 min. 1948. Explains all the traffic signs and signals found on the highway and in cities. Stresses importance of learning to recognize them by their shape. Narrated by Eddie Cantor. (TV) NSC-ac.

SURVIVAL (16mm or 35mm sound motion) baw. I min. 1951. Years ago, the woodsman left signs to wern the untrained traveler in the wilderness. Today, highways carry similar "signs of life" to avert tragic results of carelessness. A highway safety film trailer of general interest. (TV) NSC-a.

YOU SET YOUR LIFE (16mm sound motion) baw. 11 min. Illustrates importance of observing highway signs and signals. Points out importance of mainteining safe driving practices on the highway. NSC-b, (TV) 70-ab, 109-b, 112-b, 113-b, 115-b, 117-b, 121-b, 125-b, 126-b, 127-b, 137-b.

57 NEW DRIVER

ACCIDENT BEHAVIOR: See Section 65.

SEHIND THE WHEEL (16mm sound motion) baw. 26 min. Presents fundamental practices in learning to drive as outlined in the driver manual issued by Center for Safety Education. Suitable for high school students. 108-b, 119-b, 120-b.

BORROWED POWER: See Section 50.

CONTROLLING THE CAR (35mm silent slidefilm) baw. 45 frames. The basic operations involved in controlling a moving car. For the beginning driver. 39-a, 137-c.

CURVE CONTROL (16mm sound motion) baw. 11 min. 1938. Illustrates the steering mechanism of various types of vehicles and shows correct steering practices. Discusses geometric principles governing the subject.

DESTINATION, DEATH: See Section 50.

DRIVER EDUCATION SERIES (16mm sound motion) baw. 10 min. each. 1951. A series of six driver training films. Titles Parking the Cer, Driving in the City, Driving on the Highway, Driving at Night, Care of the Cer, Driving Under Adverse Conditions. Available separately or as a series. See individual headings for detailed descriptions. 108-b, 122-b, 127-b, (TV) 159-ac.

DRIVING AT NIGHT: See Section 58.

DRIVING IN THE CITY—Driver Education Series (16mm sound motion) baw. 10 min. 1951. Covers driving through controlled and uncontrolled intersections, as well as correct method of making right and left turns in treffic. Stresses importance of rules of right-of-way as they pertain to other vahicles and pedestrians. Suitable for high school and edult audiences. 108-b, 122-b, 127-b, (TV) 159-ac.

DRIVING ON THE HIGHWAY — Driver Education Series (16mm sound motion) baw. 10 min. 1951. Two causes of most open-highway accidents are speed and reduced elertness. Urges habit of looking for clues as to what's happening ahead. Suitable for high school and adult audiences. 108-b, 122-b, 127-b, (TV) 159-ac.

DRIVING STRAIGHT AHEAD (35mm silent slidefilm) b&w. 57 frames. A training film for beginning drivers, showing the rules and precautions to observe in driving straight along a street or highway. 39-a, 137-c.

THE DRIVING TEST (16mm sound motion) baw. II min. Concerns the driving skills which have been found most difficult for the beginner to master. Suitable for students learning to drive or those seeking to improve their driving skill prior to the driving test. 112-b.

DRIVING UNDER ADVERSE CONDITIONS: See Section 59.

DRIVOTRAINER SERIES (16mm silent motion) baw. 2 hrs., 20 min. 1953. A series of twenty-two short audience participation films for basic driver training. To be shown only while using automatic Drivotrainers and special instruction material. Although films run 2 hours and 20 minutes, the complete course covers 24 hours of class time. Before planning to schedule, apply to source for full details. For high school students and adults. (TV) 2-apply for information.

IN CASE OF ACCIDENTS (35mm silent slidefilm) b&w. 61 frames. Post-accident procedure for the driver—how he should handle the emergency and comply with the law. A new-driver training film for high school and adult audiences. 37-a, 137-c.

IN THE DRIVER'S SEAT: See Section 50.

INTERSECTION CONTROLS (35mm silent slidefilm) baw 67 frames. The control devices which govern the movement of traffic at intersections explained and illustrated. For adult and school audiences. 39-a, 137-c.

KNOW YOUR CAR (16mm sound motion) baw. 15 min. Illustrates the construction of a car chassis, how the engine converts gasoline into power, the function of the clutch, function of the transmission and rear axle, how the brakes stop the car, how the electrical systems function, and what the gages on the instrument panel indicate. 109-b.

LEARN AND LIVE (16mm sound motion) col. 15 min. 1950. Demonstration of the methods used in driver training courses to teach the new driver the rudiments of driving skills. (TV) 169-ac.

MICKEY'S BIG CHANCE (16mm sound motion) baw or col. 20 min. 1953. Story of Mickey's efforts to earn his big brother's car keys while his brother is in service. Shows how Mickey becomes a safe driver. For high school students. (TV) 5-a.

PARKING (35mm silent slidefilm) b&w. 59 frames. Demonstrates proper technique in parking car. Tells legal restrictions on parking. Suitable for high school and adult audiences. 39-a, 137-c.

PARKING THE CAR — Driver Education Series (16mm sound motion) b&w. 10 min. 1951. Techniques used when parking the car. Covers both horizontal and vertical parking. Suitable for high school and adult audiences. 108-b, 122-b, 127-b, [TV] 159-ac.

ROAD EMERGENCIES (35mm silent slidefilm) baw. 54 frames. How to cope with common emergencies encountered in operating a motor vehicle on the open road. A general interest film for the new driver. For both adult and high school audiences, 39-a, 137-c.

SAFE DRIVING: ADVANCED SKILLS, PROBLEMS (16mm sound motion) b&w or col. 10 min, 1951. Covers the most common driving hazards end shows how to meet them. Safe practices on blind curves, steep grades, wet roads, mud, snow, ice, etc. illustrated. 8-b, 26-ab, 108-b, 112-b, 115-b, 120-b, 125-b, 126-b.

SAFE DRIVING: FUNDAMENTAL SKILLS (16mm sound motion) baw or col. 10 min. 1951. How to get ready to drive, how to start, shift gears, back-up, drive through normal city street traffic and how to park. For the beginning driver. 8-b. 26-ab, 108-b, 112-b, 115-b, 120-b, 125-b. 126-b.

SAFE DRIVING: STREETS AND HIGH-WAYS (16mm sound motion) baw or col. 10 min. 1951. How to meet various problems of city driving. Importance of thinking ahead emphasized. 8-b, 26-ab, 108-b, 112-b, 115-b, 120-b, 125-b, 126-b.

SERGEANT BRUCE REPORTING: See Section 65.

SMART DRIVING (35mm silent slidefilm) baw. 56 frames. An instructional filmstrip for driver education classes. Deals with the accident problem and safe driving techniques. (TV) 60-ac, 137-c.

SO YOU THINK YOU CAN STOP ON A DIME: See Section 62.

SO YOU WANT THRILLS (16mm sound motion) baw. 30 min. 1948. Weaves driving safety instruction into an exhibition of trick and stunt driving skills. Contains some advertising matter. (TV) 239-c.

SPEED CONTROL (35mm silent slidefilm) b&w. 73 frames. Impresses new divers with the importance of driving at safe speeds and acquaints them with the factors which determine safe driving speed. Familiarizes the driver with the general nature of speed laws. For adult and high school levels. 39-a, 137-c.

STARTING THE CAR (35mm silent slidefilm) b&w. 46 frames. Designed to familiarize the new driver with the basic steps involved in starting the engine and putting the car in motion. 39-a, 137-c.

STOP THAT CAR (16mm sound motion) b&w. II min. 1937. Explains automobile braking systems. Shows how to use the brakes in making sudden or slow stops. 47-a.

SWITCHES, INSTRUMENTS, AND CONTROLS (35mm silent slidefilm) b&w. 70 frames. Designed to teach new drivers the names and uses of various switches and controls in the car and to give the students a functional understanding of each system. 39-a, 137-c.

TEACH THEM TO DRIVE [16mm sound motion] b&w. 20 min. 1945. Urgent message to parents and schools to teach safe driving to teen-agers. Shows driver training courses used in some high schools. Points out drop in accident rate resulting from such training. NSC-b, 7-c, 36-c, 106-b, 107-b, 109-b, 137-c.

TEEN-AGE DRIVER'S ATTITUDE SCHOOL (16mm sound motion) col. 17 min. 1951. How law enforcement agencies can help teen-agers develop safe driving habits by correcting their driving attitudes. (TV) 145-a.

TOMORROW'S DRIVERS (16mm sound motion) b&w. 10 min. Shows importance of driver education for teen-agers. Illustrates benefits obtained from such courses. For high school and adult audiences. 118-b.

TURNING (35mm silent slidefilm) b&w. 81 frames. Familiarizes new driver with proper manner of executing turns under various conditions of traffic density and road design. For adult or school audiences. 39-a, 137-c.

UNCLE JIM TELLS 'EM (16mm sound motion) b&w. 20 min. Dramatization of safe driving practices. Teaches the new driver the fundamentals of driving safely under all conditions. 36-c.

THE WEAKEST LINK (16mm sound motion) col. 20 min. 1953. Dramatic appeal to schools and other organizations to provide driver education courses for young drivers. Shows courses in action. (TV) 218-ab.

WHEEL SENSE (16mm sound motion) col. 20 min. 1949. Directed to youthful driver. Portrays champion racing driver. Torpedo Jones, demonstrating safe driving tactics to high school driver training class. (TV) 12-c, 86-a, 175-c.

WHEN YOU KNOW (16mm sound motion) baw. 11 min. 1936. Shows training needed to enable men to fly safely. Compares this to automobile driver and points out necessity of knowledge of safe driving. 30-b, 47-a.

YOUR DRIVING HABITS (16mm sound motion) b&w, 15 min. 1945. Directed to the new driver. Shows elements of safe driving, including driving under adverse conditions. 3-c, 49-b, 106-b, 109-b, 112-b, 120-b, 125-b, 126-b, 137-c, 172-a, 223-b, 239-b.

YOUR PERMIT TO DRIVE (16mm sound motion) b&w. 10 min. 1950. Points out the obligations and privileges connected with a driving permit. Shows how permit can be abused by driver with unsafe habits. (TV) 39-ac, 112-b, 126-b, 137-c, 223-b.

THE NIGHT TRAFFIC HAZARDS

AUTOPSY OF AN AUTO ACCIDENT (35mm sound slidefilm) b&w. 10 min. Illustrates seven principal causes of driving accidents, stressing the part poor lighting played in each. Uses statistics to show how proper illumination reduces hazards. 101-ac.

THE DEAD OF NIGHT (16mm or 35mm sound motion) b&w. I min. 1951. An investigator examines a vicious accident that occurred on a straight, dry concrete highway at night. A film treiler emphasizing the unexpected dangers of darkness. (TV) NSC-a.

DRIVING AT NIGHT — Driver Education Series (16mm sound motion) b&w. 10 min. 1951. Illustrates hazards of night driving. Explains "over-driving headlights," proper method of signaling intentions of passing, dangers of fatigue and glare. Uses animation and live action. Suitable for high school and adult audiences. 108-b, 122-b, 127-b, (TV) 159-ac.

DRIVING UNDER ADVERSE CONDI-TIONS: See Section 59.

NIGHT AND BAD WEATHER DRIVING (16mm sound motion) b&w. 11 min. 1949. Demonstrates safe practices for night and bad weather driving. (TV) 70-ab, 106-b, 107-b, 108-b, 109-b, 112-b, 113-b, 115-b, 120-b, 121-b, 125-b, 126-b, 127-b, 137-c,

NIGHT DRIVING (35mm sound slidefilm) b&w. 15 min. Emphasis placed on three rules for night driving—inspection and adjustment of headlights, dimming when meeting other cars on the road and gearing speed to headlight range. 137-c.

THE NIGHT FLYER (16mm or 35mm sound motion) b&w. 1 min. 1949. A trailer which expresses a dramatic "NO!" to the question: "Can the speeder at night see danger in time to avoid it?" Tells how drivers can help decrease night accident tolls. (TV) NSC-a.

THERE'S DANGER IN DARKNESS (35mm sound slidefilm) b&w. 6 min. 1945. Importance of correct street lighting aids in the reduction of traffic accidents. 101-c.

BAD WEATHER AND WINTER DRIVING HAZARDS

DRIVING UNDER ADVERSE CONDITIONS—Driver Education Series (16mm sound motion) b&w. 10 min. 1951. Illustrates techniques used when driving at night, in fog, in rain, snow or mud, and in extremely hot weather. Animation, as well as live action. Suitable for high school or adult audiences. 108-b, 122-b, 127-b, (TV) 159-ac.

NO USE SKIDDING (35mm sound slidefilm) b&w. 20 min. 1944. Dramatizes hezards of winter driving; how to avoid such hazards. Also discusses braking on snow and glare ice. (TV) NSC-ac.

SNOW AND TRAFFIC (16mm sound motion) bow. 13 min. 1948. Traces the development of a storm in an eastern state and documents the effect of the snowfall on traffic in general. All scenes are factual, having been photographed on the spot. Suitable for groups studying the winter traffic problem. 181-c.

SNOW BUSINESS (16mm or 35mm sound motion) b&w. I min. 1950. Sweeney's neglect should prove to all motorists the need for winter driving precautions. A trailer illustrating safe practices in winter driving. (TV) NSC-a.

WINTER BLUNDERLAND [16mm sound motion] col. 20 min. 1950. Shows numerous winter driving faults and suggests corrective measures. Also available in French version. 161-ac.

WINTER'S DEADLY TRICKS (16mm or 35mm sound motion) b&w. I min. 1951. Trailer gives graphic picture of dangers that lie in a harmless, little patch of ice, the tripwire that can spell death to unsuspecting drivers. (TV) NSC-a.

GO DRINKING AND DRIVING

DEATH ON THE HIGHWAY (16mm sound motion) baw. 11 min. 1950. Drink, speed and danger on the highway. The effect of alcohol on the driver. (TV) 209-c.

DRUNK DRIVING (16mm sound motion) b&w, 20 min, 1945. Based on the thesis, "If you drink, don't drive." Shows the effect of a tragic accident on a young husband's career. Includes a study of the relationship between police courts and community welfare. 12-b, 108-b, 109-b, 110-b, 112-b, 116-b, 120-b, 121-b, 126-b, 137-c.

KILLER ON THE HIGHWAY: See Section 65.

THE MIXER (16mm sound motion) col. 10 min. 1953. Two teen-age couples start for the State Fair. One couple mixes drinking and driving with apparently tragic results. Surprise ending lands them at the Fair for a day of fun. For adult and high school audiences. (TV) 169-ac.

ONE MORE REPORT (16mm or 35mm sound motion) b&w. I min. 1950. A trailer giving graphic evidence that drinking and driving are a fatal combination. (TV) NSC-a.

TESTING THE DRINKING DRIVER (35mm sound slidefilm) b&w. 20 min. Scientific tests used by police departments on drivers accused of drunk driving. NSC-ac.

ADULT PEDESTRIAN

THE AGE OF DANGER (16mm or 35mm sound motion) b&w. I min. 1949. A trailer appealing to all pedestrians to be on the alert, and to all motorists to be careful. Shows a naturally cautious man, grown careless with age, taking a chance he wouldn't have taken had he been younger. (TV) NSC-a.

ARE YOUR FEET KILLING YOU? (35mm sound slidefilm) b&w. 20 min. 1944. Hits hard at the causes of pedestrian accidents. Illustrated with case histories of such accidents. Shows how they might have been avoided through safe practices. (TV) NSC-ac.

CHRISTMAS DAZE (16mm or 35mm sound motion) b&w. 1 min. 1951. John Mathews spent Christmas day in a hospital bed because his enthusiasm made him forget to walk safely. A film trailer. (TV) NSC-a.

FATAL STEPS (16mm or 35mm sound motion) b&w. 1 min. 1951. Pedestrians who cross streets without looking invite accidents—and death. In this trailer, they survive, amid a squeal of brakes and tires—but only with luck. (TV)

FOOT FAULTS (16mm sound motion) b&w. 11 min. Aimed at the careless pedestrian. Illustrates prevention of accidents through safe practices. 69-b.

HEEDLESS HURRY, ENDLESS WORRY [16mm sound motion] b&w. 10 min. Pedestrian safety is the principal subject illustrated, but safe and unsafe driving practices are also shown. For audiences of all ages. 6-b.

THE JAY WALKER (16mm sound motion) col. 10 min 1950. An eccentric driver, who has managed to break all the rules of good driving, proves to be no more eccentric than a pedestrian. Humorous treatment throughout. (TV) 273-ac.

ON YOUR TOES (35mm sound slidefilm! b&w. 15 min. 1950. How an average small community solved its pedestrian problem by instituting a pedestrian safety program. 103-c.

PEDESTRIAN SAFETY (35mm sound motion) baw. 10 min. 1952. A Pete Smith Specialty, proving the "pedestrian is always (7) right." Stressors the safe practices that must be followed when walking, by showing what might happen when they are disregarded. For theater use only. 162-ab.

THE RUN DOWN (35mm sound slidefilm) baw, 15 min. 1953. Illustrates unsafe acts which bring injury and death to pedestrians. Begins with a hit and run case in which the police trace the guilty driver. 103-c.

SAFETY ON THE STREETS: See Section 65.

SAVE A LIFETIME (16mm or 35mm sound motion) b&w. I min. 1950. A visual question to all pedestrians: Is the gamble of your lifetime worth the extra minute you may save by hurrying? A pedestrian safety trailer. (TV) NSC-a.

SCREWDRIVERS AND SCREWJAYS: See Section 50.

STEPS TO SAFETY (16mm sound motion) b&w. 25 min. 1941. Satirizes dangerous pedestrian practices. A general interest film for pedestrians. 147-a.

TRAFFIC SAFETY (35mm silent slidefilm) b&w. 54 frames. 1948. Shows how unsafe walking habits cause unnecessory accidents. Gives rules for crossing streets and highways. 78-a.

TRAFFIC WITH THE DEVIL: See Section 65.

WE WHO WALK (16mm silent motion) baw. 16 min. Correct and incorrect ways of crossing streets and highways. Uses shots of pedestrians who unknowingly become actors in this film, 36-c.

WHEN YOU ARE A PEDESTRIAN (16mm sound motion) baw. 12 min. 1948. Shows the common hazards that occur in walking. Emphasizes care needed to avert accidents. 36-c, (TV) 70-ab, 108-b, 109-b, 113-b, 115-b, 117-b, 120-b, 121-b, 125-b, 126-b, 127-b, 137-c.

X MARKS THE SPOT: See Section 50.

62 CHILD PEDESTRIAN

BETWEEN THE LINES (16mm silent motion) b&w. 15 min. Children in elementary school demonstrate to the town mayor the necessity for sets of lines marking crosswalks at intersections. 108-b, (TV) 118-bc.

CLOSE CALL FOR JIMMY (16mm sound motion) col. 14 min. 1952. A sequel to "Happy Locomotive." Aimed at reducing juvenile destruction of railroad property. Also designed to prevent trespassing and to promote safe practicos for children at grade crossings. For elementary and secondary school levels. [TV] 176-a, [TV] 177-a.

DO YOU WALK SAFELY? (16mm sound or silent motion) baw or col. 14 min. 1943. A nine year-old boy, walking home from school, encounters ten situations which require safety precautions. The second half of the film shows what he did in each situation. 108-b, 203-ab.

ELMER THE SAFETY ELEPHANT WHO NEVER FORGETS (35mm silent slidefilm) b&w. 39 frames. 1952. Five important rules for children to remember when crossing or standing near streets. Contains both cartoon and live actors. For elementary school level. 207-a.

THE HAPPY LOCOMOTIVE (16mm sound motion) col. 15 min. 1950. A cartoon intended to combat trespassing by children on railroad property. See "Close Call for Jimmy" for a sequel. Elementary and secondary levels. (TV) 177-a.

HOW PATROLS OPERATE (16mm sound motion) b&w. 15 min. 1943. Designed to train new school patrols and correct faults in existing patrols. For secondary school patrol members. (TV) 5-a.

IT'S THEIR STREET, TOO! (16mm or 35mm sound motion) b&w, I min. 1951. A trailer dramatizing the story of two children, Jane and Joe. Joe was careless in traffic—and only Jane lives today. A poignant portrayal of the results of unpredictable action on the part of children in traffic. For adults. (TV) NSC-a.

LET'S STOP AND GO SAFELY (16mm sound motion) baw or col. 17 min. 1949. Outlines traffic safety rules for drivers in areas where children are playing. Emphasizes need of courtesy toward children in school areas and elsewhere. For the adult driver. (TV) 68-ab, 107-b, 117-b, 120-b.

MARY LEARNS HER TRAFFIC LESSON (16mm sound motion) bew or col. 10 min. 1952. Colorful puppet animation shows primary school children the correct way to cross the street. 205-a.

ON GUARD FOR SAFETY (16mm sound motion) b&w. 17 min. 1940. Traces growth of a school patrol. Shows procedures for setting up patrols, awarding service certificates, and training new recruits. For elementary and high school levels. 5-a.

ONE! TWO! THREE! GO! (16mm sound motion) b&w. 10 min. 1941. An "Our Gang" comedy, which stresses three rules for safe crossing of streets: (1) Look to the left, (2) Look to the right, (3) Look behind for turning vehicles. If all is clear, then GO! For elementary school children. NSC-b, 12-b 106-b, 108-b, 112-b, 113-b, 117-b, 120-b 125-b, 126-b.

PATROL PROTECTION (16mm silent motion) b&w. 10 min. Dramatic presentation of right and wrong attitudes toward safety in school children. Designed to instill proper attitudes and promote membership in school safety patrol. For elementary and high school students. 108-b.

THE SAFEST WAY: See Section 52.

SAFETY FOR SMALL FRY (16mm sound motion) b&w or col. 15 min. 1951. How local police forces have been teaching safety to young children through their own safety school patrols. For elementary and secondary levels. (TV) 146-a, (TV) 160-ac.

SAFETY IN THE STREETS (35mm silent slidefilm) col. 56 frames, 1951. Object lessons in traffic safety for children explained through the misadventures of Ergo the Cat, who almost lost his nine lives. For primary grades, 59-b.

SAFETY ON THE STREET (16mm or 35mm sound motion) b&w. 11 min. 1952. The story of Judy and Fred, and their efforts to become members of the school safety patrol. The purpose of the patrol and the value of the work it does are shown. For elementary school children. (TV) 37-ab, 108-b, 115-b, 127-b.

SAFETY ON THE WAY TO SCHOOL (16mm sound motion) baw or col. 10 min. 1952. Shows children the safety precautions that must be taken on the way to school. For elementary and junior high levels. 26-ab, 127-b.

SAFETY PATROL (16mm sound motion) b&w. 10 min. 1938. The story of a safety patrol. Shows how lives are saved by the young boys who keep children safe on their way to and from school. For elementary and secondary school audiences. 36-c. 39-c. 47-a. 49-b. 66-b. 115-b. 120-b. 125-b. 126-b. 137-c. 217-b.

SAFETY TO AND FROM SCHOOL (16mm sound motion) b&w. 10 min. 1946. How, when and where to cross the street in safety — presented in simple dialogue and illustrated in detail so the child will understand. Designed for showing in primary grades. 12-b, 48-ab, 49-b, 66-b, 69-ab, 102-ab, 106-b, 108-b, 109-b, 112-b, 115-b, 121-b, 124-b, 127-b, 215-b, 217-b, 239-b.

SCHOOL BUS SAFETY: See Section 44.

SERGEANT BRUCE REPORTING: See Section 65.

SO YOU THINK YOU CAN STOP ON A DIME—Coronet Safety Education Series (35mm silent slidefilm) baw. 54 frames. 1948. Safe walking habits for pedestrians when crossing streets or walking along roads. Rules for driving at night or in bad weather. For junior and senior high school levels. NSC-a.

SPEAKING OF SAFETY [16mm silent motion] baw. 12 min. Safety lessons, taught through use of cartoon faces superimposed on automobiles. Children are shown crossing in the middle of streets, hitching rides, riding bicycles recklessly, playing in streets, etc. The automobiles then speak to them to correct their errors. For elementary and secondary school students. 37-b, 111-b, 117-b.

STREET SAFETY: FOR ADVANCED GRADES [16mm silent motion] b&w. 14 min. 1934. Illustrates fundamental safety principles which should govern outdoor activities. Shows the right way to cross streets, alight from street cars, safe places to play, and how to walk along roads where there are no sidewalks. (TV) 37-a, 108-b.

STREET SAFETY: FOR PRIMARY GRADES (16mm silent motion) baw. 7 min. 1934. Correct pedestrian habits for children. Where to cross the street, how to obey traffic lights and signs, and where to play. (TV) 37-a, 108-b, 109-b, 126-b.

STREET SAFETY IS YOUR PROBLEM (16mm sound motion) b&w. 10 min. 1952. Stresses safe practices when walking along streets and highways or when playing near streets, highways, driveways and other traffic areas. For elementary school children. 66-b, 102-ab, 108-b, 112-b, (TV) 208-b.

TOM JOINS THE SAFETY PATROL—School Safety Series (35mm silent sliderilm) b&w. 51 frames. 1946. Explains the function of the school safety patrol and tells how to become a member of patrols. For elementary and secondary grades. NSC-a.

TRAINED TO SERVE (Idemm sound motion) col. 23 min. 1942. How Chicago Motor Club trains safety patrol leaders in camp. Emphasizes the need for these leaders in our public schools to teach children the need for safety. For high school students. 5-a.

YOUR RESPONSIBILITY (16mm or 35mm sound motion) b&w. 1 min. 1949. A trailer pointing out that safe practices must become a habit to the child pedestrian. Explains it is the adults job to teach safety to the child. (TV) NSC-a.

63 BICYCLE SAFETY

A LIFE IN THE BALANCE (16mm or 35mm sound motion) b&w. I min. 1949. A trailer comparing the skilled bicycle rider with the untrained rider. For both children and adults. [TV] NSC-a.

BICYCLE SAFETY (16mm sound motion) b&w. 10 min. 1950. Promotes safe bicycle practices among elementary and secondary school boys and girls. Rules are applicable to any type of community. 66-b, 102-ab, 108-b, 109-b, 112-b, 125-b, 127-b, 208-b, 215-b.

BICYCLE SAFETY RODEO (16mm sound motion) baw or col. 15 min. 1952. A definite program is needed to arouse enthusiasm for bicycling safety. Serves as a guide to the training of judges and shows the methods used in handling such a program. For use by elementary school groups and interested adults. 187-a.

BICYCLING SAFELY TODAY {16mm sound motion} b&w. 20 min. 1949. Covers all phases of bike fun, with emphasis on safety. Shows bicycle riding clubs touring the countryside, youngsters pedaling to school, bicycling as it was practiced in the early nineties, champion riders. For teenagers and adults. 109-b, 112-b, 127-b, (TV) 142-ab, (TV) 212-c.

BICYCLING SAFELY TODAY (16mm sound motion) baw. 10 min. 1951. Habits to develop, precautions to take, methods to use in bicycling. Bicycle safety for the high school student and the adult. 36-c.

BICYCLING WITH COMPLETE SAFETY (16mm sound or silent motion) baw. 10 min. 1947. A boy on a bicycle is involved in an accident. The way in which he could have avoided the accident is illustrated. For secondary school students. 6-abc, 15-ab, 22-a, 36-c, 106-b, 108-b, 109-b, 112-b, 113-b, 121-b, 122-b, 142-c, 239-b.

ON TWO WHEELS (16mm sound motion) b&w. 14 min. 1938. Gives safe cycling rules, each of which is illustrated to a violator in a school traffic court. For the secondary school level. 36-c, 39-c, 47-a, 49-b, 106-b, 107-b, 108-b, 115-b, 116-b, 117-b, 119-b, 125-b, 126-b, 142-c.

PEDALING POINTERS — Coronet Safety Education Series (35mm silent slidefilm) b&w. 46 frames. 1948. Gives rules for bicycle safety in city and on highways. Shows how to maintain bicycle to keep it safe. For elementary and secondary school children. NSC-a.

SAFE ON TWO WHEELS (16mm sound motion) baw. 10 min. 1950. Shows the bike rider the importance of good riding habits with emphasis on observance of traffic rules. For elementary and secondary levels. (TV) 2-c.

SAFETY ON THE STREETS: See Section 65.

SAFETY ON TWO WHEELS—School Safety Series (35mm silent slidefilm) b&w. 51 frames. 1946. Safety for bicycle riders. Proper habits for riding in traffic and maintenance of the bicycle are shown. For elementary and secondary grades. NSC-a.

SPINNING SPOKES (16mm silent motion) baw. 18 min. A boy smeshes his bicycle in an accident. Later he learns to ride safely after entering a safety contest. Secondary school level. 36-c.

YOU AND YOUR BICYCLE (16mm sound motion) b&w. 11 min. 1949. Narrator gives tips on proper bycicle care as well as safety rules to follow while riding. Secondary level. 36-c, (TV) 70-ab, 109-b, 113-b, 115-b, 120-b, 121-b, 125-b, 126-b, 127-b.

GA TRAFFIC CONGESTION

AMERICA'S TRAFFIC PROBLEM (16mm sound motion) baw. 15 min. 1950. Pictures the ever increasing problem of road congestion. Describes some of the steps which have been taken to relieve the situation. 108-b, 112-b, 124-b, 126-b, 189-a.

ARTERIES OF THE CITY: See Section 65.

BETTER AND SAFER HIGHWAYS: See Section 52.

CAUTION, DANGER AHEAD (16mm sound motion) baw. 16 min. 1952. The crowded conditions of American highways today. Some of the reasons such highways are unsafe, 170-d.

DEVIL TAKE US: See Section 65.

FREEDOM'S HIGHWAYS (16mm sound motion) baw or col. 22 min. 1951. Shows development of today's traffic conditions. Discusses their impact on everyday life.

HORIZONS UNLIMITED: See Section 40.

LET'S GET OUT OF THE MUDDLE (16mm sound motion) b&w. 29 min. 1951. Description of traffic congestion and unsafe highway conditions. Suggests how some of the more urgent traffic control problems might be solved. (TV) 39-ac.

PROBLEMS OF CITY DRIVING: See Section 65.

TRAFFIC JAM AHEAD (35mm sound slidefilm) b&w. 20 min. 1945. How number of automobiles has created tremendous traffic hazards. Outlines a program for traffic safety that may be used by the community and the nation. (TV) NSC-ac.

65 GENERAL INTEREST

ACCIDENT BEHAVIOR (16mm sound motion) b&w. 20 min. 1950. Step-by-step procedures in event of an automobile accident. Covers care of injured; fire hazards; keeping accident from getting worse; legal responsibilities and other post-accident behavior. (TV) 70-ab, 108-b, 112-b.

ARTERIES OF THE CITY (16mm sound motion) b&w. 10 min. 1952. Elements which influence the development of a city's transportation facilities. Includes discussion of traffic system and police regulations. (TV) 37-ab, 69-ab, 109-b, 116-b.

DEVIL TAKE US (35mm sound motion) baw. 21 min. 1953. Highway safety problems as seen by an officer of the California Highway Patrol. Shows not only unsafe highway conditions, but unsafe drivers. Dramatizes accidents happening to real people. For theatrical use only. Produced by Theatre of Life, and filmed with the cooperation of the National Safety Council and the California Highway Patrol. 178—apply for information.

HAVING A WONDERFUL TIME: See Section 88.

HIGHWAY MANIA (16mm sound motion) baw. 12 min. 1948. Traffic accidents, their cost and causes. Examines the role played by incompetent drivers and the lack of uniform traffic laws throughout the country on the annual traffic toll. Gives suggestions for reducing number of accidents. NSC-b, 110-b, 217-b.

HIGHWAYS SAFETY FILM (16mm sound motion) col. 25 min. 1950. Describes the safety program for street repair crews in the city of Baltimore. 165-c.

HORSE SENSE IN HORSE POWER (16mm sound motion) baw. 10 min. Illustrates the development of the automobile industry. Moves from scenes of early days of motoring to modern testing methods. 120-b.

KILLER ON THE HIGHWAY (16mm or 35mm sound motion) baw. 18 min. 1952. Shows the consequences of reckless driving, speeding, and drunken driving. (TV) 209-c.

LIVE, AND LET LIVE (16mm sound motion) col. 10 min. 1947. Uses three dimensional, scale model animation to demonstrate ten of the leading causes of highway accidents. (TV) 2-c.

LOOK WHAT YOU'RE MISSING (16mm sound motion) col. 27 min. 1950. A general interest film for drivers. Shows the hazards which the everyday driver must be prepared to meet and how he can meet them safely. (TV) 196-ac.

PRACTICE MAKES PERFECT DRIVERS [16mm sound motion] b&w. 10 min. 1950. Good drivers get that way only through constant awareness of safe driving habits. Tells how to acquire these habits. 39-a, 108-b, 112-b, 126-b, 137-c, 223-b.

PROBLEMS OF CITY DRIVING (16mm sound motion) b&w. 11 min. 1949. Today's traffic conditions test the skills of the modern driver. Gives safety rules the driver must adopt to meet this test. (TV) 70-ab, 112-b, 113-b, 115-b, 120-b, 121-b, 126-b, 137-c.

SAFETY ON THE STREETS—Living Safely Series (35mm silent slidefilm) b&w. 46 frames. 1946. The principal causes of motor vehicle accidents resulting in death. Shows safe way of riding bicycles on the street and gives safe practices for pedestrians. 102-a, (TV) 208-b.

SAFETY PRACTICES FOR THE MOTOR VEHICLE DRIVER: NON-MILITARY DRIVING (35mm silent slidefilm) baw. 108 frames. Presents a large number of questions about typical situations which a driver meets. Designed to test the driver's knowledge of safe driving practices. 24-c.

SCIENCE OF AUTOMOBILE SAFETY (35mm silent slidefilm) båw. 45 frames. 1950. The scientific principles behind automobile safety. Illustrates friction and its application to brakes, inertia, skidding. Shows effect of centrifugal force when automobile is rounding curves. Text included. (TV) 67-a.

SERGEANT BRUCE REPORTING (16mm sound motion) baw. 5 min. each. 1950. A series of 13 short motion pictures covering verious phases of treffic safety, including pedestrian safety and driver training. For both high school and adult audiences. Available singly or as a series. 12-b, (TV) 51-ac, 112-b, 172-ab.

SHORT STOPS (16mm sound motion) baw. 10 min. 1940. Explains operation of the hydraulic brake. Effect of speed and road surface on stopping distance shown. Expert drivers explain how to use brakes most effectively for smooth and safe stops. 30-b, 47-a, 49-b, 109-b, 111-b, 137-c.

TRAFFIC WITH THE DEVIL (16mm or 35mm sound motion) b&w. 17 min. 1949.

Directed to motorists and pedestrians. Analyzes the cause of traffic accidents. "Do's" and "don't's" for safe walking and driving given. NSC-b, 12-b, 109-b, 124-b, 126-b, 127-b, 137-c, 162-ab (Theatre use only), 237-d.

WITH CARE: See Section 40.

WORD OF HONOR (16mm sound motion)

b&w. 30 min. 1951. Dramatizes the hazards of "hotrod" driving practices among teenagers. Offers a constructive program to combat these dangers. For high school and adult audiences. 185-ab.

YOU BET YOUR LIFE (16mm sound motion) col. 15 min. 1947. Shows summer driving faults and ways of eliminating them. 161-ac.

PART IV



HOME

70 CHILD SAFETY

A SAFE USE OF TOOLS (16mm sound motion) baw or col. 5 min. 1941. Shows elementary school children how to use simple tools with safety. Covers scissors, knives, hammers, saws, files, clamps and other small implements. For elementary school students. 26-ab, 66-b, 109-b, 114-b, 115-b, 119-b.

ARE YOU SAFE AT HOME? — Coronet Safety Education Series (35mm silent slide-film) b&w. 54 frames. 1948. Directed to the junior and senior high school student. Tells how to locate accident hazards in the home and what can be done to eliminate them. NSC-a.

BLASTING CAP (16mm sound motion) baw or col. 15 min. 1944. Designed to warn the public, especially children, of the dangers of blasting caps. Shows what they look like, how and when they are used. (TV) 43-ac.

CORONET SAFETY EDUCATION SERIES (35mm silent slidefilm) baw. 1948. A series of eight filmstrips based on lesson units taken from "Safety Education" magazine. Covers various aspects of safety at home and at school. Suitable for junior and senior high schools. See individual listings for detailed description. Titles: 1. Fire Safety; 2. Recreation—A Community Problem; 3. So You Think You Can Stop On A Dimel; 4. Don't Be A Jerk!; 5. Safe Only In Smart Hands; 6. Are You Safe At Home?; 7. Pedaling Pointers; 8. Make Yours A No-Accident Policy. NSC-a.

FIRE! PATTY LEARNS WHAT TO DO (16mm sound motion) col. 16 min. 1951. Teaches children what to do in case of fire. Firemen are used to explain procedures. Elementary grade level. 109-b, 127-b, (TV) 153-a.

FIRE PREVENTION IN THE HOME (16mm sound motion) baw. 14 min. 1951. How home fire prevention can be taught to

school students. Shows how instruction carries over to every member of the family. (TV) 37-ab, 57-ac, 109-b, 119-b, 120-b, 127-b.

THE GIANT STORY (16mm sound motion) col. 20 min. 1947. Concerns the danger to children from railroads, automobiles, fire and electricity. They are shown to be benevolent giants when used properly—monsters when misused. For intermediate and high school levels. 181-c.

HOME SAFETY — School Safety Series (35mm silent slidefilm) b&w. 61 frames. 1946. Common hazards and unsafe practices of the home. Methods of correction shown. Secondary and elementary grades. NSC-a.

KEEPING CHILDREN SAFE—Child Care Series (35mm silent slidefilm) b&w. 36 frames. 1950. Gives special attention to the problems of safety when supervising young children, indoors or outdoors. Emphasizes the importance of knowing how to reach competent help if an accident should occur. 102-a, (TV) 208-b.

MAKE YOURS A NO-ACCIDENT POLICY—Coronet Safety Education Series (35mm silent slidefilm) b&w. 51 frames. 1948. Shows various causes of accidental death and points out common sense as the best preventative. For junior and senior high school students. NSC-a.

SAFETY AT HOME (16mm silent motion) baw. 7 min. Safe practices for children in the home. Explains care of playthings, hazards of climbing on unsteady furniture, danger of hendling metches, hazards of protruding nails, loose rugs, etc. For children in the first three grades. 69-ab, 122-b.

SAFETY BEGINS AT HOME (16mm sound motion) b&w. 10 min. 1946. Covers accident hezerds found in the home and shows how they can be recognized and avoided. Produced for school children in intermediate grades. 12-b, 66-b, 69-ab, 102-ab, 115-b, 120-b, 125-b, 125-b, 215-b.

SAFETY WITH EVERYDAY TOOLS (16mm sound motion) baw or col. 10 min. 1952. Safety rules for children when using tools. For elementary school children. 26-ab, 112-b, 120-b.

SING A SONG OF SAFETY SERIES (35mm sound slidefilm) baw. 227 frames. 1946. Safety songs and rhymes for small children. Children participate in the singing. In four parts: Part 1. 56 frames, 5 songs; Part II. 57 frames, 5 songs; Part III. 56 frames, 5 songs; Part IV. 58 frames, 4 songs. Available singly or as a series. (TV) 67-a.

WE MAKE A FIRE (16mm sound motion) b&w. 10 min. 1949. Instructs small children on principles of fire sefety. Shows how to avoid burns and spread of fire through carelessness. 37-ab, 137-c.

WE MAKE SOME SAFETY RULES—Experiences in Living Series (35mm silent slidefilm) baw. 34 frames. 1952. Directed to elementary grades. Shows class making safety rules for playing, working, using crayons and scissors, and going up and down stairs. 102-a, (TV) 208-b.

WHY TAKE CHANCES? (16mm sound motion) b&w. 10 min. 1952. Designed to teach safety to small children by portraying situations where a child may be injured. (TV) 213-a.

71 ELECTRICAL HAZARDS

ELECTRICAL SAFETY (16mm silent motion) b&w. 30 min. Concerns safe handling of appliances and electric wires in the home. For both adults and children. 104-b.

OCTOPUS IN THE HOUSE (16mm sound motion) col. 28 min. 1952. Humorous approach to the importance of adequate wiring in the home. Illustrates the effect on home safety of overloaded circuits. Contains considerable advertising material. (TV) 221-ab.

PREVENTION OF FIRES THROUGH ELECTRICAL SAFETY (16mm silent motion) b&w. 22 min. 1941. Demonstrates the various ways fires start through makeshift wiring in homes and suggests ways of correction. A poorly wired house is correctly wired by an electrician. 106-b.

72 FIRE, EXPLOSIONS AND FIREWORKS

ARE YOU SAFE AT HOME?—Accidents Don't Happen Series (16mm sound motion) b&w. 13 min. 1950. Shows the many hazards found in the home, with special emphasis on fire. Tells how these hazards can be eliminated. 59-b, 66-b, 102-ab, 113-b, 172-a, (TV) 208-b.

BAD MASTER (16mm silent motion) b&w.
15 min. 1946. Shows cause of fires in the home and illustrates some of the common sense methods of preventing them. 201-c.

BLASTING CAP: See Section 70.

COAL GAS (16mm sound motion) col. 8 min. The unfortunate explosion of the Bagley's house (and Mr. Bagley) emphasizes the importance of keeping coal furnaces clean and using them according to instructions. Animation used. 109-b.

CRIMES OF CARELESSNESS (16mm or 35mm sound motion) baw. 11 min. 1947. Dramatizes the importance of fire prevention in the home. Depicts the principal causes of home fires and describes means of preventing them. 19-a, (TV) 57-ac, 87-b, 113-b.

FIRE: See Section 87.

FIRE (16mm sound motion) b&w. II min. 1947. Describes domestic uses of fire and principles of combustion. Nature of fire hazards and methods of fire fighting follow. (TV) 37-ab, 42-b, 69-ab, 106-b, 109-b, 116-b, 117-b, 120-b, 127-b, 137-c.

FIRE FIGHTING FOR HOUSEHOLDERS: See Section 87.

FIRE PREVENTION IN THE HOME: See Section 70.

FIRE SAFETY (16mm sound or silent motion) b&w. 14 min. 1930. Deals primarily with fire prevention in the home. Shows how to cope with sudden fires and tells where to look for fire hazards. (TV) 37-a, 108-b, 109-b, 112-b. (silent) 115-b.

FRIEND OR FOE (16mm sound motion) b&w. 16 min. 1946. Calls attention to frightful toll of life and property caused by home fires. Suggests ways the average householder can take action against this menace. 2-c.

MORE DANGEROUS THAN DYNAMITE (16mm sound motion) b&w. 10 min. 1945. A stark warning against using highly volatile combustibles to dry clean in the house. Film contrasts the elaborate precautions in commercial cleaning establishments with hazardous home conditions. (TV) 15-ab, 42-b, 57-c, 104-b, 105-b, 108-b, 111-b, 112-b, 115-b, 127-b, 137-c.

THEN CAME JULY 5 (16mm sound motion) b&w. 10 min. Presents case against unrestricted sale and use of dangerous types of fireworks. Offers a safe and sane resolution for celebrating Independence Day. (TV) 15-ab, 112-b, 115-b.

WHERE'S THE FIRE? (35mm sound slidefilm) b&w. 8 min. 1950. Shows everyday fire hazards in the home and gives ways of correcting them. Discusses various methods of extinguishing fires. (TV) 196-c.

7:3 FIREARMS

AIM FOR SAFETY (16mm sound motion) col. 17 min. 1946. Safety while hunting. Emphasizes need for common sense while carrying and using guns in the field. (TV) 2-c.

THE MAKING OF A SHOOTER (16mm sound or silent motion) col. 30 min. sound; 40 min. silent. Shows proper methods of handling firearms. For beginners in the sport or experienced shooters who have become careless. 6-abc, (TV) 79-c, (silent) 119-b, (silent) 121-b.

SAFETY ON! (16mm sound or silent motion) col. 11 min. sound; 15 min. silent. 1944. How to handle hunting erms. Result of improper firearms procedures shown. 199-a.

SHOOTING SAFETY (16mm sound motion) col. 25 min. 1950. How groups of young people may learn to handle guns safely under the supervision of interested adults. For both high school and adult audiences. (TV) 79-c.

TRIGGER HAPPY HARRY (16mm sound motion) col. 22 min. 1947. How firearm accidents can be reduced by educating the public in proper methods of handling guns. Includes rules for gun safety in the home and in the field. 18-c, 107-b.

7.1 KITCHEN

COOKING: KITCHEN SAFETY (16mm sound motion) b&w. 11 min. 1949. The basic safe practices which should be used in the kitchen of the average American home. 66-b, 102-ab, 108-b, 109-b, 112-b, 115-b, 120-b, 126-b, 137-c, (TV) 208-b.

HOW TO FIGHT A FIRE IN THE KITCHEN (16mm sound motion) b&w. 5 min. 1952. Prevention and extinguishment of kitchen fires. (TV) 57-ac.

MODEL FOR SAFETY (16mm or 35mm sound motion) baw. I min. 1945. Filmed in the interest of kitchen safety. Model kitchens, which have been designed with safety in mind, are shown. Points out that more accidents happen in the kitchen than any other room in the house and shows how every housewife can make her kitchen safe. A film trailer. (TV) NSC-a.

7.5 GENERAL INTEREST

ACCIDENTALLY YOURS (16mm sound motion) col. 20 min. 1951. Humorous treatment of typical home accident hazards. Tells how to recognize and correct many unsafe conditions in and about the home, 161-ac.

APPROVED BY THE UNDERWRITERS: See Section 88.

DON'T BE LIQUIDATED (35mm sound slidefilm) b&w. 15 min. 1950. Dangers arising from presence of poisonous liquids in the home. Emphasis put on necessity of proper labeling of all bottles containing poison. 103-c.

DOORWAY TO DEATH (16mm sound motion) col. 13 min. 1949. General discussion of home hozards and methods of eliminating them. (TV) 2-c.

HOME SAFE HOME (16mm sound motion) baw. 12 min. 1944. Illustrates the many little things that cause home accidents. Shows how every member of the family can help to eliminate hazards. (TV) NSC-ab.

HOME SAFETY AND HEALTH DEPART-MENTS (35mm sound slidefilm) b&w. 15 min. 1949. The role of local and national health departments in educating the nation's families in home safety. 91-c.

HOMEMADE TROUBLE (35mm sound slidefilm) b&w. 15 min. Revised 1948. General discussion of home safety. Several typical home accidents are shown, with explanation of their basic causes and means of prevention. 103-c.

IT'S YOUR HOME; PLAN IT SAFELY (35mm sound slidefilm) b&w. 20 min. 1945. How to build safety into the home. Discusses safety features for stairs, kitchens, closets, plumbing, heating, and electrical systems. (TV) NSC-ac.

LET'S BE SAFE AT HOME (16mm sound motion) col. 10 min. 1948. Typical home accidents are enacted to emphasize the importance of alertness, good manners and deliberation. Featured dangers are cluttered floors, haste on stairways, spilling liquids, electrical hazards, and play with firearms. (TV) 68-ab, 109-b, 115-b, 117-b, 119-b, 120-b, 121-b.

LITTLE THINGS COUNT (16mm or 35mm sound motion) b&w. 1 min. 1945. A trailer illustrating the importance of being careful about little things that cause falls, the most frequent type of home accident. (TV) NSC-a.

LOOK WHO'S LUCKY (35mm sound slidefilm) col. 23 min. 1949. This filmstrip follows an average family through an entire day, pointing out the spots likely to cause home accidents to all age levels. 40-ab.

SAFE LIVING AT HOME (16mm sound motion) baw or col. 10 min. 1952. Story of a family, in which safety is shown to be a family concern. Demonstrates that thinking of the safety of others will help keep the home safe. For both adult and high school audiences. 8-b, 26-ab, 108-b, 120-b, 127-b.

SAFETY IN THE HOME (16mm sound motion) b&w. 14 min. 1951. Shows the precautions taken by a typical safety-conscious family to guard the home against needless accidents. NSC-b, 8-b. (TV) 37-ab, 42-b, 45-b, 104-b, 107-b, 108-b, 109-b, 110-b, 111-b, 112-b, 113-b, 116-b, 117-b, 119-b, 121-b, 125-b, 126-b, 127-b, 182-b, 217-b.

SAFETY IN THE HOME — Living Safely Series (35mm silent slidefilm) b&w. 46 frames, 1946. Shows many hazards likely to exist in the home. A negative instruction method makes this almost entirely a "don't do this" type of picture story. 60-ab, 98-a, 102-a, (TV) 208-b.

SANITATION AND THE RURAL HOME: See Section 82.

SENTINELS OF SAFETY (16mm sound

motion) b&w. 10 min. Various hazards of the home are illustrated and methods of preventing home accidents are shown. Also shows police officers, firemen, and ambulance drivers to be "sentinels of safety," employed to protect the welfare of the nation. 36-c, 118-b. WHAT PRICE HAPPINESS? (16mm sound motion) b&w. 10 min. 1945. Illustrates common causes of most home accidents and shows ways of preventing them. NSC-b, 108-b, 137-c, 223-b.

WHAT PRICE SAFETY7: See Section 88.

PART V



FARM

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FARM FIRE (35mm sound slidefilm) b&w. 20 min. 1946. Stresses the importance of eliminating farm fire hazards by showing the amount of property damage and loss of life which result from such fires each year. 137-ac.

FIRE ON THE FARM (16mm sound motion) baw or col. 12 min. 1950. How to recognize farm fire hazards and what to do to get rid of them. Also demonstrates effective fire fighting procedures. (TV) 57-ac.

FIRE POWER: See Section 27.

OUTLAWING FARM FIRES (16mm sound motion) b&w or col. 23 min. Prevention of farm disasters through preventive inspection and maintenance. NSC-b, 137-c, 183-a.

RURAL FIRES (16mm silent motion) b&w. 30 min. 1942. Explains the care which will prevent farm fires and the methods that will stop them if started. Some of the disastrous results of carelessness are shown 199-a.

WORST OF FARM DISASTERS (16mm sound motion) b&w. 10 min. Poster-like warnings of the havoc caused by farm fires. Shows that electricity, properly used, can help prevent these fires. 109-b, 117-b.

81

MACHINERY

ARE YOU INVITING CORN PICKER ACCIDENTS? (35mm silent slidefilm) b&w. 45 frames. 1952. A comprehensive approach to the major causes of corn picker accidents. Tells how to avoid these accidents and includes pointers on the adjustment of corn pickers. NSC-a.

FARM TRACTOR SAFETY (16mm sound motion) col. 18 min. 1951. A model tractor, built to scale, demonstrates unsafe practices in tractor operations. Proper safety measures also shown. For high school, college and adult audiences. (TV) 117-b.

HANDS OFF (16mm sound motion) col. 20 min. 1952. The story of four separate corn picker accidents. Explains how these accidents occurred and shows their effect on the lives of the injured. Also gives down to earth suggestions on how to harvest corn safely. (TV) 110-bc, (TV) 184-ab.

82 GENERAL INTEREST

A STITCH IN TIME (16mm sound motion) baw. 25 min. An unavoidable accident to a small child on her father's farm is used to point out the many avoidable accidents which happen every day to farm people because of neglect and carelessness. Shows how groups of safety-conscious people are trying to make the farms safer. NSC-b, 95-c, 121-b, 137-c.

AXEMANSHIP: See Section 23.

DDT: See Section 13 for films on use.

EASIER WAYS OF LOGGING (16mm sound motion) col. 26 min. 1951. Encourages small woodland owners and operators to log more safely and economically. For high school, college and interested adult groups. (TV) 156-c, 172-a.

FARM INCONVENIENCES (16mm or 35mm sound motion) b&w. 10 min. 1936. Shows "the fool things we do needlessly" around our farms and homes—things that are inconvenient, sometimes hazardous and usually unnecessary. 46-ac, 107-b.

MIRACLE IN PARADISE VALLEY (16mm sound motion) b&w. 35 min. 1947. The "little man who wasn't there" shows a young farmer how he chanced accidents through failure to follow sefe practices and points out the numerous accidents which happen every day on the farm. He makes the farmer an ardent promoter of farm safety and helps him make Paradise Valley the safest farm community anywhere. NSC-b, 121-b, 132-c, 137-c.

MY MODEL FARM (16mm or 35mm sound motion) b&w. 10 min. 1936. The story of a lackadeisical farmer, who alibis continually for not having things just the way he wants them, and for the unsafe condition of his farm. 46-ac.

SAFE DRINKING WATER FROM SMALL WATER SUPPLIES (16mm sound motion) baw. 10 min. 1939. Safe drinking water for those outside cities and towns. How poorly designed, carelessly installed and maintained equipment results in contamination of the water supply. How contaminated water supply results in contagion. Recommendations to insure purity and safety of drinking water. Unsafe features of bored, driven and drilled wells illustrated. Correct and safe methods of installation and design shown. 115-b, 223-b.

SAFETY, OUR NUMBER ONE CROP (16mm sound motion) baw. 23 min. 1947. A 4-H farm safety film showing the activities of the clubs in promoting safety on the farm. Invites participation in the National 4-H farm safety program. High school and adult levels. NSC-b, 110-b.

SAGA OF SAWDUST SAM (35mm sound slidefilm) b&w. 13 min. 1948. Common hazards encountered by the former, including those found at work, in the home and when driving. Cartoon treatment used. 206-c.

SANITATION AND THE RURAL HOME (16mm sound motion or 35mm sound slide-film) b&w. 15 min. 1940. Deals with the problems of sanitation in rural and suburban areas. Covers proper water supply, adequate disposal systems, fly and rat control, and cleanliness in the dairy. Also available in Spanish or French. (TV) 193-ab.

TEN LITTLE FARMERS (16mm sound motion) col. 6 min. 1947. Light, amusing animation illustrates ten common accident hazards found on a farm. Suggests ways of eliminating them. 59-ab.

PART VI



GENERAL INTEREST

#5 FIRE PREVENTION

A MOST DANGEROUS COMBINATION (16mm or 35mm sound motion) baw. 2 min. 1945. Warns the general public that one of the most dangerous combinations in the world is a man, a match, and dry leaves—the cause of most forest and wood fires. A film trailer, 90-ab, 156-c, 172-a.

BEFORE THE ALARM (16mm sound motion) baw. 10 min. 1942. A brief description of the basic fire prevention and protection needs in the average American community. (TV) 57-ac, 109-b, 112-b, 115-b, 116-b, 217-b.

CONTROLLING FIRE (35mm silent slidefilm) b&w. 45 frames. 1950. Basic methods of bringing fires under control. Several types of fire extinguishers shown. For both adult and high school audiences. (TV) 67-a.

DEAD OUT (16mm sound motion) col. 20 min. 1948. Shows danger of careless burning of grass, brush and debris. Explains importance of watching the fire, how to keep it under control. 156-c, 172-a.

DON'T LET IT HAPPEN (16mm sound motion) b&w. 10 min. 1950. Shorter version of "Then It Happened." See description. (TV) 156-c, 172-a.

FIRE IN MINIATURE (16mm sound motion) col. 25 min. 1949. Traces the origin of many fires and tells some of the results of these fires. Executed with the help of miniature models. (TV) 196-c.

FIRE SAFETY—Coronet Safety Education Series (35mm silent slidefilm) b&w. 50 frames. 1948. Explains some of the most common causes of fire and shows the damage which follows most fires unless immediately extinguished. Emphasizes the importance of remaining calm in the advent of fire by showing the dangers inherent in panic. Suitable for elementary and secondary school students. NSC-a.

THE FIREBUG [35mm sound slidefilm] baw. 15 min. 1947. Places blame for majority of major fires on the "Accidental Firebug," whose carelessness causes death and destruction. 103-c.

FIREMEN (16mm sound motion) col. 11 min. 1950. Tom Jones, typical young fireman, leaves his home to report for duty at neighborhood fire station. Gives activities, routine, and actions of firemen during a period of 24 hours. For children and adults. 108.h

THE FRYING PAN AND THE FIRE (16mm sound motion) baw. 18 min. 1947. Dramatic and humorous presentation of fire prevention in the forest. With aid of frying pan, a fire which might have spread disaster, is confined and extinguished. 106-b, 117-b, 156-c, 172-a.

GOING TO BLAZES (16mm sound motion) baw. 22 min. Some common causes of fires and ways of eliminating them through inspection, good housekeeping and care in the use of cleaning fluids and electric appliances. A general interest film for high school and adult audiences. 112-b.

HOW TO CALL THE FIRE DEPARTMENT (16mm sound motion) b&w. 5 min. 1952. Various methods of calling the fire department in different communities. For both adult and high school audiences. (TV) 57-ac.

IN CASE OF FIRE—School Safety Series (35mm silent slidefilm) b&w. 48 frames. 1941. What to do in case of school fires. How to safeguard against them. Elementary and secondary school levels. NSC-a.

IT MIGHT HAVE BEEN YOU (16mm silent motion) b&w. 15 min. Shows scenes of a disastrous fire that in seven hours destroyed over 23,000 acres of timber, 25 ranch houses, and made 100 people homeless. II-lustrates what the U. S. Forest Service is doing to prevent such catastrophes. 112-b.

IT'S NO PICNIC (16mm sound motion) baw or col. 26 min. 1948. Appeals for greater care on the part of the general public in preventing forest fires. Contains spectacular forest fire scenes. (TV) 90-ab. (TV) 156-c, 172-a.

THE MAGNOLIA STORY [16mm sound motion] col. 18 min. 1952. In an effort to reduce fire losses, a town hires inspectors to guard against hazards. Their method of work and results of their work are shown. 57-ac.

NO TIME TO LOSE (16mm sound motion) baw. 5 min. 1945. Explains the three ways to report a fire—by alarm box, by telephone and by messenger. A general interest film for both adult and school audiences. (TV) 2-c.

ONE MATCH CAN DO IT (16mm sound motion) baw. 12 min. 1945. Shows how forest and brush fires start and how they can be prevented. Uses a carelessly discarded match as a symbol of the thoughtlessness which causes them. 15-ab, 42-b, 57-c, 108-b, 109-b, 116-b.

PINE WAYS TO PROFIT (16mm or 35mm sound motion) baw. 20 min. 1939. A Forest Service picture, pointing out the profitable results of protecting our forests from fire. 109-b, 112-b, 117-b, (16mm or 35mm) 156-c, 172-a.

SIXTY SECONDS TO SAFETY (16mm sound motion) baw. 12 min. Illustrates some common fire hazards in schools—waste paper carelessly left on steps, furniture blocking doors, etc. For all age groups. 6-abc. 57-bc, 66-b, 69-ab, 112-b, 114-b, 126-b.

SMOKE EATERS (16mm sound motion) b&w. 18 min. 1947. A general interest treatment of the operation of a big city fire department. 57-ac, 170-d, 189-ab.

SMOKEY BEAR SERIES (16mm or 35mm sound motion) baw. 1950-52. A series of seven film trailers appealing to everyone to help prevent forest fires. Features Smokey, the Bear, who gives instructions on how to evoid starting fires in the forest. Suitable for children and adults. Titles: Old MacDoneld (1 min), Alouette (1 min), Lonesome Road (1 min), Once Upon A Time (5 min), It's Up To You (3 min), Don't Blame Lightning (1 min), Smokey The Bear (5 min). (TV) 156-c, 172-a.

SPECIAL TELECAST (16mm or 35mm sound motion) baw. 5 min. 1952. Explains the individual's responsibility in preventing forest fires by avoiding careless acts. Available for TV or other exhibition mediums. For adults and children. (TV) 230-a.

STUPID CARELESSNESS. THE FIRE CLOWN (16mm sound motion) baw or col. 5 min. 1953. Fire prevention demonstrated by a clown and his partner. A colorful and amusing film designed to teach fire prevention to primary grades. [TV] 57-ac.

THEN IT HAPPENED (16mm sound motion) col. 10 min. 1948. Shows the devastation caused by the largest forest fire in New England's history. Explains that preservation of forest resources is the duty of every citizen. 27-c, [TV] 57-ac, 90-ab, 106-b, 117-b, 127-b, [TV] 156-c, 172-a.

THESE ARE THE FACTS [16mm sound motion] b&w. 18 min. 1950. How fire insurance companies protect the national welfare. Shows ways they guard the individual against loss by fire. (TV) 57-ac.

TONY LEARNS ABOUT FIRE (16mm sound motion) col. 16 min. 1951. Designed to teach children the fundamentals of fire safety. Shows fire departments cooperating with schools to demonstrate the necessary safety rules for fire prevention. (TV) 57-ac.

THE TORCH (16mm sound motion) b&w or col. 11 min. 1950. Certoon film on fire safety. The spirit of human carelessness is personified as "the Torch." (TV) 57-ac.

WHAT TO DO UNTIL THE FIRE DE-PARTMENT ARRIVES (16mm sound motion) b&w. 10 min. 1952. Shows what the average person can do to prevent loss of life and damage to property pending arrival of fire department. For adults and high school students. (TV) 57-ac.

YOU BET YOUR LIFE (16mm sound motion) baw. 30 min. 1952. The use of protective equipment by firemen. Importance of such protection illustrated by story of one man who neglected using his equipment. (TV) 54-ac.

86 WATER SAFETY AND LIFESAVING

BOY SCOUT METHODS OF WATER-FRONT SAFETY (16mm silent motion) bāw. 12 min. Illustration of how not to go about saving a drowning person. Also, demonstration of the correct and incorrect methods of entering and leaving a rowboat and a canoe. 12-b.

ELEMENTARY TACTICS OF LIFESAV-ING (16mm sound motion) b&w. 22 min. 1942. How to gein control of a victim of drowning by surface or underwater approaches. 12-b, 24-c, 49-b, 109-b, 172-a.

ICE RESCUE (16mm sound motion) b&w. 5 min. 1945. Several senior scouts go through the ice at temperatures varying from ten to twenty above zero to demonstrate some of the techniques of ice rescue. For high school and adult audiences, 12-b, 17-ab.

IT'S FUN TO SWIM (16mm sound motion) baw. 11 min. 1952. How young and old can enjoy swimming by practicing proper swimming style and learning water safety. For high school and adult levels. 172-a, (TV) 219-c.

LIFELINES (16mm sound motion) col. 10 min. 1949. Illustrates common swimming hezards and shows simple lifesaving methods. (TV) 2-c.

OARS AND PADDLES [16mm sound or silent motion] b&w. 24 min. 1939. Demonstrates the skills needed to prevent accidents in boats and canoes. For both children and adults. 111-b, 115-b, 117-b, (TV) 219-c. (TV) 222-a.

SAFE SWIMMING (16mm sound motion) baw or col. 10 min. 1947. Safeguards in swimming. Use of supervised areas; hazards of unsupervised areas. 109-b, 127-b, 188-ab.

SAFETY AHOY (16mm sound motion) col. 15 min. 1946. Safe practices in boating. Suggestions for the safe handling of small craft. For adults and children. (TV) 2-c.

SWIM AND LIVE (16mm sound motion) baw. 20 min. 1942. The comprehensive training in swimming given by the Army to prepare its men for any emergency. 12-b, 105-b, 119-b, 124-b.

87 CIVIL DEFENSE

AND A VOICE SHALL BE HEARD (16mm sound motion) baw. 20 min. 1951. Demonstrates role coordination of relief activities plays in reducing suffering and damage in community disasters. Indicates that success in Civil Defense program depends upon unification of local facilities. (TV) 180-ac.

ATOMIC ALERT (16mm sound motion) baw. II min. 1951. Explains in simple language the benefits and dangers of atomic fission. Tells how to protect oneself in an attack, what preparations to make, and what to do after attack is over. 124-b, 223-b.

ATOMIC ATTACK—Civil Defense Series (35mm silent slidefilm) b&w. 47 frames. 1952. How to protect oneself from effects of atomic attack, with strong emphasis on importance of keeping calm and avoiding panic. 189-a.

ATOMIC SURVIVAL (35mm silent slidefilm) col. 32 frames. 1951. Fundamental approach to the proper behavior in case of an enemy atomic attack. 82-a.

BIOLOGICAL WARFARE — Civil Defense Series (35mm silent slidefilm) b&w. 60 frames. 1952. The three types of biological warfare agents which might be used to infect both humans and plants. How public health agents are trying to protect us from such an attack. Stresses the need for constant vigilance on the part of the individual to protect himself against disease. 189-a.

CITIES MUST FIGHT (16mm sound motion) b&w. 10 min. 1952. Dramatizes reasons for maintaining a well organized Civil Defense program in every area of the United States. How saving lives and maintenance of war production will enable our armed forces to fight back. 87-b, 121-b.

CIVIL DEFENSE SERIES (35mm silent slidefilm) b&w. 199 frames. 1952. Four filmstrips pointing out exactly what the individual can do to protect himself in case of attack. See individual headings for detailed descriptions. Titles: 1. Fire Preparedness 2. Atomic Attack 3. Saving Lives 4. Biological Warfare. 189-a.

DISASTER CONTROL (16mm sound motion) baw. 20 min. 1951. Addressed to the menagement of industrial plants, this film shows the importance of preparedness against disaster—flood, fire, sabotage and the atom bomb. It explains the role of the Coordinator of Plant Defense, the importance of communications, the value of decentralization and duplication, test drills, etc. Useful in both peacetime and wartime planning. 189-a, (TV) 208-b.

DUCK AND COVER (16mm sound motion) b&w. 8 min. 1952. Bert, the turtle, plays an important role in teaching survival in atomic attack to children, without frightening them. 87-b. 106-b. 121-b.

FIRE (35mm silent slidefilm) col. 22 frames. 1951. Shows proper behavior in the home in case of extensive fire resulting from enemy attack. For adult and high school audiences. 82-a.

FIRE FIGHTING FOR HOUSEHOLDERS (16mm sound motion) baw. 10 min. Designed to show householders how to fight small fires in the home in times of emergency. Points out that ability to cope with a small blaze will prevent widespread conflagration. Prepared for the Civil Defense Administration. 57-ac, 87-b, 109-b, 121-b, 126-b, 137-c.

FIRE PREPAREDNESS—Civil Defense Series (35mm silent slidefilm) b&w. 47 frames. 1952. What to do in case of fire caused by air attack. Basic facts about fire outlined and the means of fighting such fires illustrated. 189-a.

LIFE LINES OF DEFENSE (16mm sound motion) baw. 20 min. 1952. Dramatizes the importance of telephone service functions in Civi! Defense and points out the obligations of civilians to participate in Civil Defense work. (TV) 212-c.

OUR CHILDREN MUST SURVIVE (35mm silent slidefilm) baw. 67 frames. 1951. Comprehensive information for parents, children and schools, showing how to prepare for natomic attack—what to do to protect oneself—what supplies to put up—what

rules to obey just before and during such an attack. Contains an appeal to children to prepare now for the future. 82-a.

SAVING LIVES—Civil Defense Series (35mm silent slidefilm) b&w. 45 frames. 1952. Gives besic principles of first aid and stresses importance of treating victims quickly. Pointers on treatment of bleeding, burns, fractures, shock and suffocation presented. 189-a.

SELF-PRESERVATION IN AN ATOMIC ATTACK (16mm sound motion) baw or col. 20 min. 1951. Demonstration of what should be done in event of an air or underwater atomic explosion. Shows the relative effects of blast, heat and radiation. For adults and high school levels. 121-b.

SHOCK TROOPS FOR DEFENSE (16mm sound motion) b&w. 11 min. Tells the story of America's civilian fire fighters and shows the need for a strong nationwide fire corps. 69-ab, 117-b.

SURVIVAL UNDER ATOMIC ATTACK (16mm sound or silent motion) b&w. 10 min. 1951. How to withstand the first atomic blast, treat burns and wounds, and prevent fires. What food is safe to eat. How to minimize the effect of radioactivity. Made in several different versions to facilitate wider use. Also available in 8mm sound or silent motion (10-15 min.) and in special short 16mm or 8mm versions (5 min.). For high school and adult audiences. (16mm sound or silent; 10 min.-15 min.) 3-b; (16mm sound (10 min.) 87-b, 108-b, 112-b, 121-b, 137c, (TV) 172-a, 217-b; (all versions) 223-b.

TARGET, U. S. A. (16mm sound motion) b&w. 11 min. 1951. Instructions for organizing a Civil Defense program in factories and populated areas. Gives recommended preparations for defense against atomic attack. 87.b. 121.b.

WHAT YOU SHOULD KNOW ABOUT BIOLOGICAL WARFARE (16mm sound motion) b&w, 10 min. 1951. Discusses dangers of biological attack and gives instructions for safeguarding against it. 87-b, 121-b, 137-c, (TV) 172-a.

YOU AND THE ATOMIC BOMB—Safety in an Atomic Attack Series (35mm silent slidefilm) b&w. 80 frames. 1951. Illustrates in non-technical style personal aspects of survival during atomic attack. Gives important facts everyone should know in planning protection against atomic disaster. 98.a.

YOU CAN BEAT THE A-BOMB (16mm sound motion) b&w. 17 min. 1950. Reviews perils inherent in atomic attack, but stresses preventive measures that would save many lives. Shows typical American family anticipating and undergoing A-Bomb raid. 117-b, 170-d, 189-ab, 217-b, 223-b.

188

RECREATION, PUBLIC SAFETY, AND OTHER GENERAL INTEREST FILMS

A CLOSED BOOK (16mm sound motion) b&w. 26 min. 1950. A small town doctor sets out to improve the attitudes of his neighbors toward all types of safety. Success in his one-man crusade contributes to the happy ending of the story. NSC-b, 108-b, 110-b, (TV) 137-ac.

A SAFE USE OF SWINGS AND SLIDES (35mm silent slidefilm) col. 28 frames. 1949. Illustrates the safe use of playground equipment. Shows, through the medium of puppets, the right way of taking turns, sitting straight, swinging in one direction, and use of safety line in swinging. Primary level. 217-b.

ACCIDENTS WILL HAPPEN, IF YOU LET THEM (35mm silent slidefilm) b&w. 35 frames, 1952. An approach to safety problems in schools and homes, and on streets and highways. Stresses importance of knowledge reinforced by experience and proper attitudes. Suitable for elementary and junior high school students. 186-a.

APPROVED BY THE UNDERWRITERS [16mm sound motion] baw. 30 min. 1946. Shows tests made on all sorts of devices by Underwriters' Laboratories to check for fire and accident hazards. Technical in content. [TV] 57-ac, 88-c.

AVALANCHES TO ORDER (16mm sound motion) b&w or col. 17 min. 1950. Shows work of safety patrols in avalanche country. Illustrates methods used in protecting life and property by controlling slides and warning of impending avalanches. (TV) 90-ab, 156-c, 172-a.

CONEY ISLAND (16mm silent motion) b&w. 9 min. 1947. Consideration for others and attention to safe practices are shown to result in greater enjoyment for all on beach outings. (TV) 204-ab.

DANGER SLEUTHS [16mm sound motion] b&w. 16 min. 1950. Accident prevention through safety testing of appliances and equipmnet. The work of Fire Underwriters' Laboratories. 57-ac, 88-c, 109-b, 170-d, 189-ab.

DO IT WITH E's (16mm sound motion) baw. 25 min. 1951. A Forest Service inservice training film. The three E's of safety—Education, Engineering and Enforcement—are demonstrated by practical examples. Typical Forest Service accident prevention problems are solved by the Ranger as he applies the three E's to his work. 156-c, 172-a.

FOR YOU AND YOURS (35mm sound slidefilm) b&w. 20 min. 1946. Tells what can be done to prevent accidents in everyday living. A general interest film narrated by Vincent Pelletier and featuring Edward G. Robinson and the Dinning Sisters. (TV) NSC-ac.

HAVING A WONDERFUL TIME (35mm sound slidefilm) b&w. 15 min. 1952. Safe practices for vacationers. Includes traffic safety, water safety, and precautions to be taken in the woods. 103-c.

HEALTH AND SAFETY IN THE OUT-OF-DOORS (35mm silent slidefilm) b&w. 42 frames. 1950. How to have a good time on a hike or trip and still be safe. For both adult and high school audiences. 98-a.

HOOK, LINE AND SAFETY (16mm sound motion) col. 17 min. 1946. Pictures a fishing trip in the northwoods, during which an experienced angler, by his example, gives a novice many pointers on safe woodcraft. (TV) 2-c.

LET'S PLAY SAFE (16mm sound motion) baw or col. 10 min. 1948. Covers play-ground safety. Animated characters show what children should not do on the play-ground. 66-b, (TV) 68-ab, 108-b, 110-b, 113-b, 115-b, 117-b, 120-b, 121-b, 126-b, 127-b, 214-b.

LIVE AND LEARN (16mm sound motion) baw. 13 min. 1951. Points out recreational accidents likely to happen to children and gives steps to be taken to prevent them. NSC-b, 121-b, 137-c.

LIVING IN A MACHINE AGE — Living Safely Series (35mm silent slidefilm) b&w. 42 frames. 1946. Advantages and disadvantages of living in a machine age. Hazards the machine age has brought. Old and new machines compared. The accidental death toll resulting from the use of machines. 102-e, (TV) 208-b.

NO LONGER WORRIED [16mm sound motion] b&w. 28 min. 1952. Illustrates history of the institution of insurance in America and its work in preventing loss. Shows the interest insurance companies are taking in safety movements. [TV] 172-c.

PARDON OUR SPEED (35mm sound slidefilm) b&w. 24 min. 1950. Too many accidents are caused by someone being in too much of a hurry. An ardent appeal to everyone to slow down and take time to be safe. 40-ab.

PLAY IN THE SNOW (16mm sound motion) b&w. 10 min. 1945. Appropriate clothing, health habits and safety rules for playing in the snow illustrated. Suitable for primary levels. (TV) 37-ab, 106-b, 115-b.

PLAY SAFE—School Safety Series (35mm silent slidefilm) b&w. 47 frames. 1946. Demonstrates correct safety habits for the school playground. For kindergarten through 6th grade. NSC-a.

PLAY SAFE (16mm sound motion) b&w or col. 10 min. Designed to teach safe playing, walking and riding habits to primary level. Both animation and live action used. (TV) 70-ab, (color) 109-b, 115-b, 125-b.

PLAYGROUND SAFETY (16mm sound motion) b&w or col. 10 min. 1947. Designed to motivate elementary children to improve their playground behavior by following three basic rules of safety. 6-abc, (TV) 26-ab, 49-b, 105-b, 106-b, 107-b, 109-b, 112-b, 113-b, 115-b, 119-b, 120-b, 121-b, 126-b, 127-b, 214-b, 223-b.

POISON IVY (35mm sound slidefilm) b&w. 19 min. 1946. Tips on poison ivy menace for all who work or play outdoors, showing plant itself, its habitat and how to tell the difference between it and other plants. 10-c.

RECREATION, A COMMUNITY PROB-LEM — Coronet Safety Education Series (35mm silent slidefilm) b&w. 59 frames. 1948. Shows facilities provided at a wellplanned recreation center. Methods used by the community to keep parks and playgrounds clean and safe illustrated. Rules for safety when swimming, skiing, playing ball, or participating in other sports introduced. For junior and senior high school students. NSC-a.

SAFE LIVING AT SCHOOL (16mm sound motion) b&w or col. 10 min. 1948. Safety in the school. Emphasizes importance of courtesy, good housekeeping and knowledge of what to do when an emergency arises. For elementary school fevels. 8-b. 26-ab, 108-b, 109-b, 115-b, 120-b, 124-b, 126-b, 127-b. 214-b.

SAFE LIVING IN THE COMMUNITY (16mm sound motion) baw or col. 10 min. 1952. Shows the need for carrying into the community, safety practices learned at school. A school safety council discovers that school rules of good housekeeping and good citizenship will help keep the community safe. For all age levels. 8-b, 26-ab, 108-b, 119-b, 120-b, 125-b, 127-b.

SAFETY AT PLAY (16mm silent motion) b&w. 7 min. 1941. Contrasts safe and unsafe places to play. Discusses safety in use of play equipment and first aid for minor injuries. For children in the first three grades. 3-b. (TV) 37-ab, 108-b, 119-b.

SAFETY AT SCHOOL AND AT PLAY—Living Safely Series (35mm silent slidefilm) baw. 39 frames. 1946. Common causes of accidents occurring at school and at play. Safety rules to follow in school gymnasiums, playgrounds, corridors and on steirs. For elementary school students. 102-a, (TV) 208-b.

SAFETY IN WINTER (16mm sound motion) baw or col. 10 min. 1952. Safe practices in winter sports and other winter activities. For all age levels. 26-ab.

SAFETY ON THE PLAYGROUND (16mm sound motion) baw or col. 14 min. 1952. Illustrates good habits in playground safety. Live action and animation are used to portray safe practices when playing ball and using playground equipment. Special emphasis on need of consideration for others. For elementary school levels. (TV) 37-ab, 108-b.

SCHOOL SAFETY COMMITTEE [16mm sound motion] baw or col. 14 min. 1952. Junior Safety Council activities in the elementary school. Designed to teach children of the elementary school level the purposes and functions of the council. [TV] 141-a.

SKI TIPS (16mm sound motion) col. 21 min. 1949. Advice to beginning and experienced skiers on safe skiing and the value of the National Ski Patrol System. (TV) 2-c.

SNOW RANGER (16mm sound motion) baw or col. 15 min. 1951. How the Snow Ranger, in cooperation with the National Ski Patrol, works tirelessly for the safety and enjoyment of winter sports enthusiasts. Grade 6 to adult audiences. (TV) 156-c, 172-a.

SUMMER SAFE [35mm sound slidefilm] b&w. 15 min. Revised 1947. Designed to show both adults and children how to be safe in summer. Contains information on insect bites, poison ivy, malaria, exhaustion and other factors which might cause an unhappy and unhealthy summer. 103-c.

VACATION SAFETY (16mm silent motion) baw. 14 min. 1940. Safety precautions to be taken in summer camps for elementary and junior high school children. Teaches children how to be safe while swimming, boating, and while building a fire. 3-b, (TV) 37-a, 108-b.

WHAT PRICE SAFETY? (16mm sound motion) b&w. 20 min. Story of inside workings of a building construction racketeering gang, who attempt to escape regulations of building code. Emphasizes problems encountered in public safety. 12-b.

WORK OF THE RESCUE UNIT (16mm sound motion) baw. 15 min. 1942. Gives details of rescue unit work. Covers equipment, methods of removing victims from wreckage, and other important factors. 109-b.

YOUR GREEN CROSS IN ACTION: See Section 1.

GUIDE TO SOURCES

- NSC National Safety Council 425 N. Michigan Ave. Chicago II, Illinois
 - 2 Aetna Life Affiliated Cos. Public Education Dept. Hartford 15, Connecticut
 - 3 Akin & Bagshaw 2023 E. Colfax Ave. Denver 6. Colorado
 - 4 Alpha Film Laboratories 6000 Pimlico Rd. Baltimore 9, Maryland
 - 5 American Automobile Assn. 17th St. at Pennsylvania Ave., N.W. Washington 12, D.C.
 - 6 American Film Registry 24 E. Eighth St. Chicago 5, Illinois
 - 7 American Legion National Headquarters P. O. Box 1055 Indianapolis 6, Indiana
 - 8 American Museum of Natural History 79th St. & Central Park West New York 24, New York
 - 9 American Optical Co. Southbridge, Massachusetts
 - 10 American Telephone & Telegraph Co. 195 Broadway New York 7, New York
 - 11 American Transit Assn. 292 Madison Ave. New York 17, New York
 - 12 Association Films 347 Madison Ave. New York 17, New York
 - 13 Atchison, Topeka & Santa Fe Railway System Public Relations Dept., Room 325. 80 E. Jackson Blvd. Chicago 4, Illinois
 - 14 Audio Productions, Inc. Film Center Bldg. 630 Ninth Ave. New York 36, New York
 - 15 Bailey Films, Inc. 2044 N. Berendo Hollywood 27, California
 - 16 Better Vision Institute, Inc. Suite 3157—630 Fifth Ave. Rockefeller Center New York 20, New York
 - 17 Boy Scouts of America Visual Education Service 2 Park Ave. New York 16, New York
 - 18 Paul L. Brand & Son 2153 K St., N.W. Washington 7, D. C.
 - 19 Bray Studios, Inc. 729 Seventh Ave. New York 19, New York

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- 33 Duquesne Light Co. 435 Sixth Ave. Pittsburgh 19, Pennsylvania
- 34 Edison Electric Institute 420 Lexington Ave. New York 17, New York
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- 38 The Allman Co., Inc. Free Press Bldg. Detroit 26, Michigan

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- 78 Society For Visual Education, Inc. 1345 Diversey Parkway Chicago 14, Illinois

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- 210 Variety Store Merchandiser 192 Lexington Ave. New York 16, New York
- 211 Stanley Bowmar Co. 513 W. 166th St. New York 32, New York
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- 218 Michigan Inter-Industry Highway Safety Committee 516 Olds Tower Lansing, Michigan
- 219 The American National Red Cross National Headquarters Washington 18, D. C.

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- 239 Ideal Pictures Corp. 28 E. 8th St. Chicago S, Illinois
- 240 Photo & Sound 116 Natoma San Francisco, California

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- Order your film as far in advance as possible.
- Give an alternate film choice. Your first choice may not be available for the date you request.
- Be sure the film you order is the proper type for your projector.
- Notify the source immediately if your meeting is cancelled or rescheduled.
- Return the film promptly so the next scheduled user won't be disappointed.
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Bridgeville Glass Works No. 50. General Electric Co., Lamp Division,

Bucyrus Glass Works No. 56. General Electric Co., Lamp Division, Dover Wire Works No. 74.

General Electric Co., Lamp Division, Glass Machine Works No. 283.

General Electric Co., Lamp Division. Glass Technology Laboratory No. 284. General Electric Co., Lamp Division, Lamp Development Laboratory No.

General Electric Co., Lamp Division, Lexington Lamp Works No. 23.

General Electric Co., Lamp Division, Logan Glass Works No. 58. General Electric Co., Lamp Division,

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General Electric Co., White Plains, VY Works.

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Hawaiian Commercial & Sugar Co., Central Shops, Punnene, Mani, Hawaii. Johns-Manville Corp., Tilton, N.H. Koppers Co., Inc., Garwood, Tar Products.

Koppers Co., Inc., Everett, Tar Products.

Koppers Co., Inc., Swedeland Plant. Tar Products.

Koppers Co., Inc., Youngstown, Tar

Marathon Corp., Ashland, Wis. Monsanto Chemical Co., Carondelet

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National Biscuit Co., Portland, Me. National Biscuit Co., York, Pa.

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National Distillers Products Corp., Cincinnati, Ohio (John DeKuyper & Soul

National Distillers Products Corp., Large, Pa.

National Distillers Products Corp. Mount Vernon No. 2, Sollers Point

National Distillers Products Corp.

Old Grand Dad Distillery, Frankfort,

National Distillers Products Corp., Old Taylor Distillery, Frankfurt, Ky. Philippine Electrical Manufacturing

Co., Manila, P.L. (Entire company) Revere Copper & Brass, Inc., Riverside Manufacturing Division.

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U.S.D.A., Forest Service, Boise Repair Shop.

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U.S.D.A., Forest Service, Regional Office, Ogden, Utah.

U.S.D.A., Forest Service, The Sequoia National Forest.

U.S.D.A., Forest Service, Teton National Forest, Jackson, Wyoming.

Radiant Heat

From page 31

commercial glass sheets for protection against infra-red rays were interposed between the thermopile opening and each heat source. The results showed that both special type glasses (one heat retarding, the other heat reflecting) were much more effective than ordinary plate glass in reducing infra-red ray exposure, with little practical difference between the two. (See Table II)

Since only the heat retarding type was available in a safety glass, it was selected.

A photograph of the face shield as constructed and used is shown on page 30. It was made by fitting a piece of commercially available cloth coated with aluminum foil (0.0025" thick) to a screen (30 mesh to the inch). These pieces of metal were bent into an arc and joined onto a headrest gear. A rectangular hole in the screen and aluminum foil was made for vision. Onto this opening was placed a glass lens holder from a welder's helmet, made of metal, painted with aluminum and riveted to the screen on one side and to the aluminum An Important Contribution to Public Safety

Sergeant Bruce Reporting...

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foil on the other side. A piece of the safety type heat resistant glass 21/4" x 4" was placed in the glass lens holder. The total weight of this protective device is 11/4 pounds.

Effectiveness of Face Shield

The effectiveness of this face shield was determined as follows:

The calibrated thermopile was placed at the same location as the face of a worker exposed to a hot operation. This gave mean radiant temperature exposures, assuming 100 per cent emissivity. Then the face shield was interposed between the thermopile and heat source, with the opening of the thermopile (which is 21/2" x 21/2") two inches away from the heat retarding glass. This meant the thermopile "saw" heat rays coming through the glass and the heat rays coming from the aluminum foil about the glass in the lens holder-very similar to the exposure a worker's eves, nose bridge, etc., would get. were he wearing the face shield.

The results are shown in Table III

Using the criterion suggested by Small⁷ of providing shielding for any considerable amount of surface over 200° F, it is evident that the net mean radiant temperature (using the face shield with the heat retarding glass) is below this level, except for exposures to hot surfaces containing sources greater than 2200° F. And even under such conditions, the net mean radiant temperature is no more than 240° F.

Consideration should also be given to the fact that these radiant temperatures were taken at the worst spots behind the face shield, namely 2 inches directly behind the glass part and that at most other spots behind the shield, the radiant temperature was only 5-10° F above ambient air tempera-

Effectiveness of this face shield was noted by workers wearing it. with their faces about six inches away from a hot bed while holding hot billets at a temperature above 900° F. There was no sweating on the face, nor any feeling of excessive heat.

This face shield can be used in the steel plant not only for those occupations listed in Table III, but

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Make your request today.

214 WORD OF HONOR 23 minutes National Safety Council Award Winner Dramatically emphasizes the importance of the examples set by parents in forming good (or bad) teenager driving habits in a way that will make a lasting impression. Courtesy: Kaiser-Frazer Corp.

198 DAY IN COURT 30 minutes National Safety Council Award Winner Seven typical traffic law violators come before the court in this film that points out common driver failures and presents the idea that courtesy can reduce the accident toll.

Courtesy:

International Harvester Co., Inc.

114 ÁND THEN THERE WERE FOUR

National Safety Council Award Winner Hollywood's James Stewart narrates this tale of suspense, which trails five average people along the road of "take-a-chance" driving and ends with an emotional wallop that will make every driver think twice.

Courtesy:

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214		
214	PLAYDATE	ALTERNATE DATE

also for tapping open hearth and blast furnaces, scarfing beds, etc., as well as in other industries where radiant heat is a problem but permanent heat shielding is impractical to install.

References

- George F. Haines, Jr., "Radiation Screens Improve Work Conditions in Hot Spots," Heating, Piping and Air Conditioning, September 1951.
- Karl L. Dunn, "Methods of Controlling Radiant Heat," National Safety News, January 1952.
- Bartlett R. Small, Heat Relief in Industry," Iron and Steel Engineer, April 1952.
- L. H. Newburg, "Physiology of Heat Regulation," W. B. Saunders Company, Philadelphia, 1949, p. 81.
- 5. Hardy, J. D., and Appel, T. W., "Studies in Temperature Sensation III. The Sensitivity of the Body to Heat and the Spatial Summation of the End Organs Responses." Journal of Clinical Investigation, January 1937.

6. Ibid, p. 81,

7. Loc cit, p. 77.

Cash Prizes Awarded For Technical Articles

Cash awards totaling \$1200 have been presented to nine winners in the 1952 annual Technical Papers competition sponsored by Dravo Corp. to stimulate interest of company personnel in writing articles for trade publications and professional and business associations.

First prize of \$500 was won by R. H. Klucher, engineer in the Construction Department of Dravo's Machinery Division, for his paper describing the Elrama Power Station. The paper was presented before engineering groups at several colleges and universities.

A. J. Liebman, assistant director of Dravo's Research Department, took second prize of \$300 for a paper on preparation and pretreatments of surfaces for corrosion resistance.

Third prize of \$100 went to H. A. Kamm, field safety inspector of The Contracting Division, for an article describing safety precautions during construction of Lock 2 on the Monogahela River at Braddock. Pa. His article was featured in NATIONAL SAFETY NEWS, December 1952.

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Public Service Work

From page 17

importance of the work, the facts speak for themselves:

Each year, accidents of all kinds kill more than 90,000 persons, injure about 9,000,000 others, and cause an economic loss of more than \$7,000, 000,000 in this country.

That means the total number of people killed every year by all accidents is equivalent to the total population of a city the size of Harrisburg, Pennsylvania.

The number injured every year exceeds the entire population of Greater New York.

Accidents are responsible for more permanent physical impairments than are all other causes combined.

According to the National Office of Vital Statistics, accidents are the fourth cause of death among people of all ages, and the first cause of death among young people from one to 35 years of age.

The American Medical Association reports that accidental deaths cause more loss of working years than any disease.

The work-time lost each year by industrial employees due to accidents is equivalent to the shutdown of plants with 1,350,000 workers for an entire year.

Although definite statistics are not available, it is obvious that enough customer buying power to rob business and industry of many millions of dollars yearly is destroyed by accidents, and that enough workers are killed and injured to cost business and industry many millions more.

And about three-fourths of all accidental deaths, injuries and economic losses are caused by non-occupational accidents in traffic, homes, among school age children, people engaged in recreational pursuits, and so forth.

What Is Being Accomplished

As to the tangible results and the extent to which the interests of corporations and their stockholders are being served by the public service work, the facts are as follows:

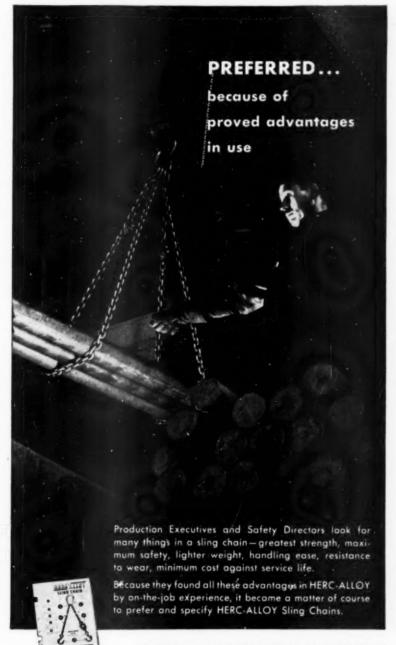
Every year beginning with 1942, when this work to prevent non-occupational accidents was started, the country's accident death rate has been lower than the year before this work was begun.

This decline has meant a saying of more than 120,000 lives and 12,000,000 lost-time injuries during this period.

Despite the increase in the number of persons killed in traffic accidents last

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year, the rate, based on miles of travel, was very much lower than in 1941, before the public service work was begun.

The off-the-job accident death rate of workers decreased from 65 per 100,000 in 1941 to 58 per 100,000 in 1952—a drop of 11 per cent.

This decline has been reflected in the off-the-job accident costs of a number of companies. One company, for instance, reported that its costs due to off-the-job accidents among its employees dropped recently from \$134, 928.79 to \$60,070.08 within a period of two years, and another reports that the decrease in traffic, home and other off-the-job accidents among its employees is saving it more than \$25,000 a year.

Since the National Safety Council, through its public service work, has spearheaded the drive against off-the-job accidents and served as a guiding and energizing force behind this campaign throughout the country, there can be no doubt that this has been an important factor in improving the situation.

Some Examples of What Is Done

To illustrate the scope and nature of the public service work, following are just a few of the activities carried on with the special grants and contributions:

Helping state and city traffic officials in connection with such problems as examination of new drivers, suspension or revocation of drivers' licenses, traffic policing, driver training course, preparation of needed amendments to traffic laws and so forth.

Compiling the Annual Inventory of Traffic Safety Activities covering all 48 states and more than 600 cities of over 10,000 population, and analyzing and reporting results to each participating state and community.

Providing monthly kits of materials for the use of some 2,000 communities throughout the country in carrying on public education for traffic safety.

Working with railroads, public officials and citizens' groups in reducing rail-highway grade crossing accidents through a combined educational enforcement and engineering program.

Working with such associations as the American Public Health Association, the American Medical Association, the National Organization for Public Health Nursing, the American Red Cross, National Congress of Parents and Teachers, Girl Scouts, American Home Economics Association, U. S. Public Health Service, National Association of Home Builders, the Children's Bureau, the American Ga-Association, National Electrical Manufacturers Association, and other organizations for promoting home safety.

Carrying on a program of general public safety education which resulted in more than 90,000 newspaper stories and more than 205,000 radio and television broadcasts being devoted to disseminating safety information last year.

Providing technical assistance and basic materials for the "Stop Accidents" campaign of the Advertising Council in which safety messages were brought to public attention through 57,000 sponsored advertisements in newspapers, 108 sponsored advertisements in magazines, 16,500 outdoor posters, 88,000 car cards, and 840 million radio and television home impressions.

Stimulating and helping farm organizations, agricultural colleges, farm equipment manufacturers, the Federal and State Departments of Agriculture and scores of other agencies in formu-

Safety Hat Earns Recommendation



ONE EMPLOYEE of the Southern Pine Lumber Co., Diboll, Texas, recommends wearing a safety hat off the job. He was wearing his hat to work recently when his car, forced off the road, turned over and smashed his head against the windshield. The crushed car top pinned his head against the dash board but the safety hat saved him from serious injury.

In this photo Vernon Burkhalter, assistant safety director for the Southern Pine Lumber Company and Albert R. Shatto, the fortunate worker, show the hat while fellow workers look on. lating and carrying out farm safety programs: and assisting 29 state farm safety committees in planning and carrying out their work.

Producing and distributing 1,134,576 lesson units and 333,000 posters on school and college safety; and chanceling safety education to children through 28,000 high schools and 157,000 elementary schools with a total attendance of 25,000,000, through 12 youth organizations reaching 3,400,000 children, through 10,000 parent organizations, and through numerous local civic and service clubs, police departments and other agencies.

Providing direct services to state and local safety councils and communities, as previously described.

How Work Is Supported

In round figures, the cost of carrying on the public service work of the National Safety Council is \$840,000 a year, while the Council receives from contributions and special grants for this work \$560,000. The difference of \$280,000 is made up by the Council out of income from dues, publications and sales of services, materials, etc.

Although gradually increasing numbers of contributions have been received from individuals during the past few years, by far the greater part of the contributed support has continued to come from business and industrial concerns. Such contributions, which are sought under the auspices of the Council's trustees and which are deductible for tax purposes, range from \$25,000 a year from some large corporations down to \$25 a year from small business concerns and come from companies in practically every field of business and industry throughout the country.

In view of the fact that nonoccupational accidents are one of the leading causes of death and of permanent physical impairment in this country, they constitute a problem that is too serious to be ignored. This problem has to be met either by a private agency or by governmental agencies, and it can be met economically and effectively by a private agency such as the National Safety Council.



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With C-O-TWO Squeez-Grip Carbon Dioxide Type Fire Extinguishers the penetrating carbon dioxide is a clean, dry, non-damaging, non-conducting inert gas... smothers fire in seconds, leaves no after fire mess... highly effective on flammable liquid and electrical fires, as well as some surface fires involving ordinary combustible materials. The C-O-TWO Squeez-Grip Valve is the greatest single contribution to the releasing of carbon dioxide for first aid fire

fighting . . . just squeeze lever to open . . . release to close. Convenient $2\frac{1}{2}$, 5, 10, 15 and 20 pound hand sizes . . . discharge horn non-conducting, shatterproof construction. Also, convenient 50, 75 and 100 pound wheeled sizes . . . available with sturdy, wide-faced wheels either with or without rubber tires, as well as available with or without discharge hose and horn protection cover.



With C-O-TWO Dry Chemical Type Fire Extinguishers the heat-shielding dry chemical is a non-conducting, non-abrasive, non-toxic, finely pulverized powder compound . . blankets fire instantly . . . exceedingly effective on flammable liquid, gas and electrical fires, as well as surface fires involving ordinary combustible materials. The exclusive inverting design renders constant free flowing dry chemical, assuring faster, more effective and complete discharge.

Convenient 4, 20 and 30 pound hand sizes . . . no syphon tubes or valves within the cylinder to

become clogged or inoperative . . . discharge hose and squeeze type discharge nozzle remain empty until actuation takes place . . . one piece removable top assembly. Also, convenient 150 pound wheeled size . . . sturdy, wide-faced wheels . . . discharge hose and two position discharge nozzle having soft or solid stream fully enclosed in protection casing . . . footrail and dual bar handle provide easy inverting.

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Awards to Railroads For Employee Safety

Six Class I railroads, which today were named group winners of the Railroad Employees' National Safety Award of the National Safety Council, had a 1952 employee casualty rate 44 per cent less than the average rate for all Class I railroads.

The combined rate of employees killed and injured per million manhours worked was 4.07 for the six winners, as compared with a 1952 rate of 7.31 for all Class I railroads. (Class I railroads are those whose operating revenues exceed \$1,000,000 annually.)

The six Class I winners and their rates follow:

The Chesapeake and Ohio Railway Co. won first place among railroads whose employees worked 50,000,000 or more man-hours. Its total accident rate was 4.44, as compared with an average of 6.57 for all railroads in this group.

Texas and New Orleans Railroad Co. was winner in the 20,000,000 to 50,000,000 manhours group. Its rate was 3.78, as compared with 5.95 for all railroads in the group.

Duluth, Missabe and Iron Range Railway Co. won first place in the 3,000,000 to 20,000,000 man-hours group. Its rate was 3,05, as compared with a group average of 9,21.

Central Vermont Railway, Inc., was winner in the 3,000,000 to 8,000,000 man-hours group, with a rate of 3.18 as compared with a group average of 10.95.

Canadian Pacific Railway Co. (Vermont Lines) was first in the 1,000,000 to 3,000,000 man-hours group. Its rate of 3.01 compares with a rate of 9,49 for all railroads in the group.

The Texas Mexican Railway Co. won in the group whose employees worked less than 1,000,000 man-hours, with a rate of 1.12 as compared with a group average of 13.99.

Among divisions of the Pullman Co., the Southwestern operating region had the best record, while among its shop units, the Richmond, Calif., shop was the winner.

Among the switching and terminal railroads (those not engaged in line-haul operations), Chicago Union Station Co. was winner in the group whose employees worked more than 1,500,000 man-hours, Bush Terminal Railroad Co. (New York City) had the best record among the roads working less than that amount.

"Railroad employees killed on duty by accidents totaled 384 in 1952, which is the lowest number in the history of modern railroading," said Ned H. Dearborn, president of the National Safety Council. "In view of the pressure of the present production effort, that is a remarkable record."

Personals

From page 42

Appliances Company since the firm was founded nearly 39 years ago.

He is a member of many engineering and safety organizations, including Mine Inspectors' Institute of America, American Institute of Mining and Metallurgical Engineers, Coal Mining Institute of America and Mine Rescue Veterans' Association.

Mr. Deike and the senior Mr. Ryan, who died in 1941, joined the United States Bureau of Mines as mining engineers in the Mine Rescue Division shortly after the bureau was established in 1910.

CHESTER E. FROWE

CHESTER E. FROWE, 52, pioneer safety engineer and one of the organizers of Hawaii Chapter, ASSE, died at his home, March 27, 1953, Mr. Frowe's work as a safety engineer and safety consultant for Cassell and Cooke, Ltd., and American Factors, Ltd., has received national recognition. Safety programs developed under his direction have won top honors for several of Hawaii's sugar plantations.

In addition to his professional work, Mr. Frowe devoted a large part of his time to community service, particularly the Shriner's Hospital for Crippled Children.

Mr. Frowe was born in Cincinnati, and received his degree in chemical engineering at the University of Cincinnati in 1923, followed by a Master's degree at the University of Arizona.

He came to Hawaii in 1930 to initiate an advanced mathematics course in the Kaehameha schools. He was employed by the Hawaiian Pineapple Co. for a short time. In 1937 he became safety engineer for military and harbor construction for the U. S. Engineering Corps in Honolulu.

He joined Cassell and Cooke, Ltd., as safety engineer in 1937 and had been serving also as safety consultant for American Factors, Ltd. During World War II Mr. Frowe was special agent with the U. S. Department of Labor, Division of Labor Standards, and was also chairman of the Appeal Board for the Selective Service System.

CARL P. ZIMMERER

Carl P. Zimmerer, treasurer of Ebasco Services, Inc., died April 23. Mr. Zimmerer resided at 69—10C 186th Lane, Flushing, N. V.

Born in New York City on November 9, 1389, he was graduated from New York University in 1912, and joined Electric Bond and Share Company in 1915 as traveling auditor. In 1927 he was named assistant general auditor, and in 1933 he was appointed general auditor of the foreign division of the company. Upon the formation of Ebasco Services in 1935. Mr. Zimmerer became general auditor of that company and since December, 1945 he has served as treasurer of the organization.

Mr. Zimmerer left no immediate family.

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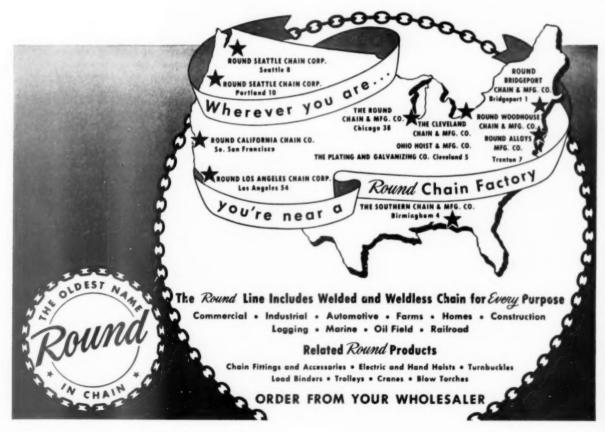
This experience and these developments make possible chainmaking advantages like these:

- Choosing the kind of raw metal best suited for making each type of chain.
- Forming and welding techniques which assure maximum link strength.

- Heat treating in special furnaces with automatic controls for maximum hardness and toughness.
- Producing at a rate consistent with quality control.
- Inspecting by microscope and spectroscope to check on physical composition and to detect flaws.

Next time you need chain, remember it's what is *inside* a piece of chain that determines the service and life you'll get from it. Today as always, the INside of *Round* Chain is the source of its superiority . . . is the factor that enables it to merit the term "BEST".

Next time, get the BEST. Get Round Chain.





Look to this page each month for latest news about NSC services. Address requests for additional information, samples or prices to the Membership Dept.

Safe Builder

The Safe Builder has joined the popular Safe Worker, Safe Driver, and Safe Railroader in bringing employees an easy-to-take accident prevention message.

Launched for the Construction Section to hit the specific hazards and unsafe attitudes encountered in construction, the Builder presents safety training in a way construction workers will read and enjoy. Cartoons, humor and homey philosophy show them how it profits workers to do every job the one best way, the safe way.

The Safe Builder is patterned along the same lines that have made the Worker, Driver and Railroader the top training aids in their fields. It is designed to innoculate workers against accidents with regular doses of sound safety psychology.

Published monthly, the Safe Builder runs eight pages and can be imprinted with company name, slogan or other personalized inscription.

Driver Training Films

A series of five driver training motion pictures in full color starring Wilbur Shaw, famous racing driver and now president of the Indianapolis Speedway, have just been released by the Council.

Designed to build and sustain safe attitudes among truck, bus, taxicab and other professional drivers, the films employ a sports theme throughout. Big name baseball, golf and bowling stars contrast the fine points of their sports with the skill and finesse "pro" drivers need to maintain their safety records. Throughout each of the 10-minute films, Mr. Shaw talks about safety in a direct, common sense manner.

Skill is Your Business shows what it takes to develop and maintain professional driving skill. It shows how that skill can be kept on tap to meet unexpected situations.

Ninety Day Flash shows how small driving errors, if made frequently, lead to faulty driving habits and inevitably to accidents, Paul Richards, manager of the Chicago White Sox, draws an analogy between safe driving habits and techniques used in professional baseball.

The Champ Becomes Deaf and Blind tells why the ability to concentrate on the job of driving, shutting out all distractions, is a big part of driving skill. Golf champ Lloyd Mangrum shows how the concentration required of professional drivers is similar to that required of professional golfers.

In Watch Your Handicap, famous bowler Ned Day shows how drivers, like some professional bowlers, can handicap themselves through lack of sleep, improper food and irregular health habits. Film stresses the importance of good health habits for the professional driver.

Take a Look at the Odds tells why the right attitude toward safety is the best insurance against accidents. The odds are always in favor of the driver who plays it safe.

Available individually or as a series, the driver training films are 16mm, sound motion pictures that come in black and white as well as color.

Operation Safety

Vacationing employees will get much good traffic safety advice from Operation Safety's July leaflet, Uncle Nate's Roadside Almanac. Written in rural dialect, the leaflet gives the views of Uncle Nate—a homespun philosopher—on the types of vacation drivers he encounters during the summer months. With wry humor, the roadside sage tells of the most common driving faults of tourists and their sad results.

This four page leaflet is attractively printed in two colors and generously illustrated with cartoons. The combination of light style and cartoon treatment make it particularly suitable for vacation time circulation.

Distributed with paychecks, house organs or other company literature, this leaflet makes an excellent off-the-job safety promotional piece. Other Operation Safety materials that fit well into the plant off-the-job safety campaign are posters, news releases, and film trailers.

Information on the Operation Safety program and materials can be obtained by writing National Safety Council, 425 N. Michigan Avenue, Chicago 11.





WORK in Safety ... WALK in Comfort

DORSEY SAFE-T-SHOES GIVE FULL PROTECTION

Protection against accident...Protection against fatigue!

Ruggedly built of select materials from the patented ARMORITE steel-flanged toe to the finest horsehide and cowhide uppers available, Dorsey Safe-T-Shoes are designed to furnish protection where protection counts most, plus solid comfort for long hours under the most severe working conditions. Compare Dorsey Safe-T-Shoes with them all and you, too, will say Dorsey gives greater protection ... longer wear . . . more economy . . . plus all-day comfort on the roughest jobs.





No. 7200 EXECUTIVE No. 6450 **PARATRO OPER**

Dorsey dress Safe-T-Shoes give the same comfort and protection plus a style and quality comparable with expensive nationally advertised footwear . . at half their price.





Mr. Safety Engineer:

Outstanding in every way, the Champion is made from triple tanned shell horsehide

with full leather toe lining, Dacron stitch-

Clip and mail this coupon today!

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Chattanooga, Temessee Gentlemen: Please send me one pair of your No. Size for free inspection. If not completely satisfied I agree to return

ese sinces to y	ou willing ten days.	
SIGNED		
TITLE		
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Conductive Rubber Has Many Safety Uses

For years rubber has been known as an ideal insulator. But in 1934 researchers discovered that by compounding with certain types of carbon blacks, rubber could be made to have an electrical resistance of less than 100 ohms.

This is called conductive rubber. Since its original development, two broad groups of rubber compounds which conduct electricity have been developed. One of these is conductive rubber which refers to any rubber with a resistance of less than 100,000 ohms. When the main property required is to prevent accumulation of static electricity on road vehicles, flooring, belting, hose, footwear, etc., a rubber with a resistance greater than 100,000 ohms can be used. This is called non-static rubber.

Conductive rubber has introduced a new safety factor wherever it is necessary to immediately discharge accumulations of static electricity. In the case of airplanes, for example, the fuselage often becomes highly charged with static electricity in flight. Unless this is discharged to earth immediately on landing, resultant sparks, during refuelling, could lead to fire and explosion. One tire of conductive rubber eliminates this possibility.

Tires of non-static rubber prevent the accumulation in a car of the electricity that causes radio interference and so frequently shocks passengers on alighting. Perhaps an even more important use of non-static rubber is in hospitals. Used in mattresses, sheeting, footwear and general apparatus, it avoids the danger of fire and explosion that could otherwise occur during operations and other hospital activities. These explosions are brought about by accumulation of static charge on the bodies of the patient and hospital staff, or upon adjacent movable equipment, due to movement over insulated surfaces during an operation.

For similar reasons, non-static rubber footwear is applicable for work in explosive factories, where a spark discharge can cause tremendous damage and in other undustrial plants where fire is a hazard. It is also used in the manufacture of industrial hose, cables, belting, chute linings and other applications where its nonspark feature provides a needed safety factor.

While conductive and non-static rubbers radically change the insulation quality, there is no change in any of the rubber's other normal qualities.

Molten Aluminum

From page 25

in the melting furnace, dropping furnace tools covered with molten aluminum on the floor, and runouts due to overcharging the melting or holding furnace.

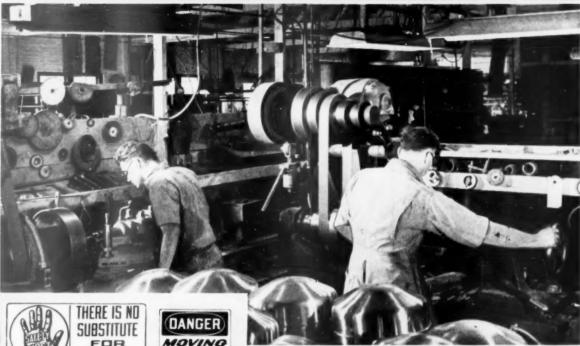
The expected hazards accompanying dropping, wedging, or cutting are present during charging of pig or scrap metal.

Processing Alloy

For stirring, fluxing, skimming and pouring the melted aluminum alloy is held at 1300 to 1400 degrees F. Molten aluminum does not burn when exposed to the atmosphere so use of a protective atmosphere for flux is not necessary. The melted charge is stirred with a paddle on the end of an iron rod to obtain a uniform mixing and solution of alloying elements.

The fluxing operation consists of bubbling chlorine gas through the molten bath, or submerging aluminum chloride in the bath, to scavenge the metal of gas and foreign inclusions. Chlorine fluxing is done by introducing the gas by means of an iron pipe immersed in the molten metal while aluminum chloride is added by means of a cast iron receptacle on the end of an iron rod. Use of chlorine gas presents the hazard of possible gas inhalation. Men fluxing with chlorine gas or repairing chlorine lines should be instructed in the use of emergency methods to detect and stop leaks. and in the proper use of gas masks. Emergency kits and gas masks should be available when needed. Daily inspections are necessary. Men should work in pairs when fluxing with chlorine gas, when

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Denver 4, Colorado TION · Steel SIGNS IN STANDARD COLORS AND DESIGNS

National Safety News, June, 1953



Instant treatment for poisonous snake bites — may be easily carried in shirt pocket. Tiny, powerful suction pump operates with one hand! Kit also contains lancet, antiseptic, adhesive compress, tourniquet, shock treatment. Easy-to-follow instructions are permanently mounted inside kit cover.



making connections, or repairing chlorine lines. Aluminum chloride when exposed to the atmosphere, absorbs moisture, and its use when moist or wet results in spattering of molten aluminum.

The surface of the molten bath is skimmed with an iron rod and dross is removed from the furnace. Handling of stirring, fluxing and skimming tools requires care to avoid burns from contact with hot tools and furnace and from splashed molten aluminum or dross either from the furnace or tool when it is removed.

Removing Molten Steel

Molten metal is removed from the furnace at desired temperature through an orifice in a cast iron spout. This tapping hole is plugged with foundry flour or fire clay to restrain molten aluminum prior to pouring. Possible hazards from this operation are slight blows from a dough or plugging ball that is too wet, and spurting, splashing or running out of molten aluminum.

Molten aluminum alloy scrap is transferred from the melting furnace by means of a refractory-lined trough into pig molds. Protective clothing, gloves, flash masks, and leggings should be worn for such operations. The man behind the protective plate is skimming the dross or oxide from the surface of the molten aluminum alloy in the mold. The man holding the rod with the dough ball on the end is ready to plug and stop metal flow from the furnace.

Casting Ingots

The greater portion of aluminum ingot for rolling, extruding and forging is cast by the directchill process. This consists in introducing molten alloy aluminum through a pouring tube into an open-ended, short, thin watercooled sheet metal mold. The metal mold is closed temporarily at the bottom end by a steel block. After solidification of the first aluminum alloy poured into the mold, the bottom block and the solidified or solidifying bottom portion of the ingot is lowered vertically through water sprays. Molten metal continues to be introduced into the mold in an amount synchronized with the rate of lowering the solidifying alloy ingot.

Rectangular direct-chill ingots for rolling into sheet and plate are cast in lengths up to 144 inches weighing up to 6,000 pounds.

Flash masks, asbestos coats, and leggings are worn for about the first five minutes of the pouring cycle.

Starting the pour is the most hazardous part of the casting cycle. Wet, or insufficiently dried pouring troughs, control rods, and bottom blocks will cause slight to severe explosions, or blows of molten metal depending upon the amount of moisture or water present.

Breaking the bottom or outer solid shell of the solidifying ingot, allowing the molten metal to run through, will also result in blows when the molten metal entraps

Sheet ingots are removed from the casting unit by a scissors-type grab. Chain and hook are used to remove cast ingot from casting units at other cast houses.

Prevention of Burns

Our data, as well as safety records from other aluminum cast houses, show that burns from the molten and hot solid metal are more frequent than any other injury. A large portion of burns are caused by molten metal splashing. These splashes are caused by dropping solid metal into the molten bath in the melting furnace, dropping furnace tools covered with molten aluminum on the floor, and run-outs due to overcharging the melting or holding furnace. Some burns are caused by blows resulting from charging wet pig or scrap, the use of wet furnace or casting tools, and runouts during direct-chill casting.

Careful inspection of directchill wrought bottom blocks should be made to insure that no cracks exist that could hold water or moisture. Pigs can retain moisture in the shrinkage cavity, or even the oxide film, if corroded by weathering, and should be inspected for moisture or water prior to charging into the molten

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Consist of a series of best grade 18-gauge stamped steel panels, seven inches high, that comprise both the background and letter mounting arrangement. The uprights are of 16 gauge metal, galvanized after fabrication. The unit also includes an attractive 2" border which is an integral part of the background, and easily attached end pieces.

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Build immunity or treat the effects of these poisonous plants with ImunOak or ImunIvy. Easily administered orally or injected by a physician, these extracts have proven clinical records of prompt and marked relief.

FREE: Write for copy of folder "Poisonous Plants at a Glance."

E. D. BULLARD COMPANY



275 EIGHTH STREET SAN FRANCISCO, CALIFORNIA Distributors in principal cities bath. Scrap should be inspected and dried when necessary. All furnace tools should be heated prior to immersion in the molten bath. Transfer and pouring equipment should be thoroughly dried by heating prior to pouring. Care should be exercised in locating the pouring nose, and if the baffle is used, with respect to the bottom block in starting a direct-chill casting.

Cold pig molds should be heated by burning kerosene in them prior to filling them with molten metal. Some ingots, particularly small round ingots for extrusion, are cast in water-cooled permanent molds. Molds of this type should be inspected constantly for cracks which could hold moisture or water, and should be heated when cold prior to filling with molten aluminum alloy.

Tools and equipment that are given a protective coat of lime or wash should be carefully dried.

Aluminum at a temperature just below the melting point has the same color or appearance as aluminum at room temperature and the new worker should be told this immediately.

Flash burns can be avoided by placing the lighted torch before the burner prior to turning on the gas.

Rubber gloves should be worn when working with caustic or acid.

Goggles should always be worn in the cast house. We have a pair of goggles worn by a man who was splattered with molten aluminum and the outside of one lens is completely covered with aluminum. This man is now a member of the "Wise Owl Club."

Other Injuries

Handling injuries can be kept to a minimum by wearing gloves, safety shoes, leggings, and by proper lifting methods, care, and safety consciousness.

Alertness and better housekeeping will prevent the type of accident caused by workers walking into fixed objects. Injuries

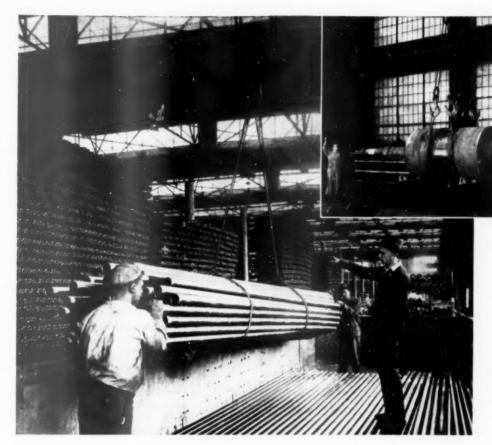
TABLE I

Aluminum Alloy Cast House Safety Record

August 1, 1951, to July 31, 1952

General assification Type or Cause of Injury Van

Classification Of First Aid Cases		Type or Cause of Injury		Vamher	Total
1.	Burns	I-1. I-2. I-3. I-4.	Metal Flash Caustic Other	183 1 2 3	189
II.	Eyes	11-1, 11-2, 11-3, 11-4,	Floating dust or dirt Flying objects Flash Caustic	152 2 1 2	157
III.	Handling	HII-1, HII-2, HII-3, HII-4, HII-5, HII-6, HII-7,	Metal Cuts Caught between objects Puncture wounds Lifting Moving Using tools Other	38 29 10 8 6 5	102
IV.	Walked Into or Hit By	IV-1. IV-2.	Fixed objects Dropped or fallen objects	63	79
٧.	Falls	V-1. V-2. V-3.	Same level Different levels Over an object	6 5 1	12
VI.	Mise If eaus	VI-1. VI-2. VI-3.	Gas inhalation Heat exhaustion Foot	H 2 2	12
	Total First Aid Cases Disabling Injuries Total Man-Hours Worked				1
	Freque	nev (D	hisabling Injuries Per Man-Hours)		



Write for Folder 571. which illustrates several of the most widely-used types of Bethlehem slings.

Always Get Slings That Are Tailored for the Job

There isn't any one kind of sling that's suitable for every job. Lifting problems differ greatly, and factors like weight, contours of load, speed of lift, and distance traveled all affect the choice of slings.

Often the very simplest type will serve the purpose. Note, for instance, the picture of the Bethlehem singlepart slings as they easily handle that bundle of pipe. Here a conventional choker rigging, employing slings with spliced loop ends, is doing the job very well.

In contrast, note the rather complex arrangement used to lift the bulky forging. This is a heavier, trickier lift, and the rigging has several components, including two bridles with hooks and thimbles.

Are there some lifting problems requiring study in

your particular layout? If so, Bethlehem will gladly help you work them out. Feel perfectly free to consult with our engineers, who are especially well qualified to serve you.

And don't forget, Bethlehem is now making a bigger and better line of slings than ever before. There just isn't any size or type that we can't make up for you. Tell us your set-up, we'll do the rest . . . in a shop equipped to tailor slings for every need.

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FERROX facts

- Open the can...trowel it on...
 ...say so-long to slips.
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AMERICAN Safety Floorings

AMERICAN ABRASIVE METALS CO. . IRVINGTON II, N. J.

caused by dropped or falling objects can also be reduced by good housekeeping, safety inspections and consideration for the safety of fellow workers. Safety shoes should always be worn. Containers holding scrap should not be filled too full. Aluminum pigs should not be stacked too high.

Falls can be kept to a minimum by keeping aisleways and working areas free from oil, grease, water, aluminum scrap, pig, furnace tools, casting equipment, and random objects.

Salt tablets are a necessity to avoid heat cramps or exhaustion when working around melting furnaces or casting units in an aluminum cast house.

Two Safety Records

Table I shows the safety record of an aluminum cast house for one year. In our opinion, this excellent record is due largely to interest of the workers in forming and conducting their own safety meetings and the consideration given by management to the recommendations of the workers' safety committee.

A second aluminum alloy cast house having identical operations to the first one mentioned, had 619,106 man-hours worked during the same year, but had a frequency rate of 37. The location, type of labor, labor turnover, and interest of, and cooperation between, workers and management are probably some of the factors accounting for the difference in safety records of the two aluminum cast houses.

I have changed my viewpoint in several respects on the performance of cast house operations during the many years that I have spent as an aluminum metallurgist. I became more practical in specifying metallurgical practices. But the real eye-opener was the realization of the importance of safety.

Industrial Health

-From page 46

mist is becoming continuously more acute.

In this plant the attempt has been made to remove the mist from the effluent gas by the bombardment of the effluent with water droplets discharged through fog nozzles at pressures of 400 to 700 pounds per square inch. The effluent gases are sprayed with process water and the sulfuric acid solution recovered from the spray system is recycled to the manufacturing process. This has resulted in effective reduction of the acid loss. The daily recovery from the spray tower in this plant is 41% to 7 tons of sulfuric acid.

The spraying of the effluent gases saturates them with water vapor so that there is sometimes a plume of steam over the stack.

Detecting Dust Damage To Workers' Lungs

Detection of Early Lung Functional Changes in Industrial Exposure, by Hurley L. Motley. The Industrial Health Conference, April 21, 1953.

THE VARIATION in individual susceptibility to dust hazards is shown by the fact that in coal mining some men are able to work a normal life span without great injury whereas others are completely disabled after 15 to 20 years of exposure.

Measurements of vital capacity and of maximum breathing capacity have been studied in a large number of cases of chronic pulmonary disease and correlated with other measurements of pulmonary function. The maximum breathing capacity measurement seems to be most useful for the early detection of lung changes such as the loss of elasticity resulting from dust damage and such as obstruction from spasm of the bronchial tubes produced by inhaled irritants.

Measurement of the maximum breathing capacity before and after a single treatment with a bronchial dilating drug has provided a good method for determining the amount of bronchial spasm present.

The routine measurement of maximum breathing capacity together with the chest X-rays of industrial workers exposed to dust hazards would seem to be desirable in the early diagnosis of fibrosis (scar formation, and bronchial obstruction). It would enable the early detection of the more susceptible individuals. If the annual maximum breathing





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No two jobs are exactly alike, so there's no such thing as one "best" power type. Which type is best for you?—that's the important question. The only person who can give a really unbiased answer is one who knows them all, and knows where they fit.

That's your local CLARK Dealer. He carries electric, gas, diesel and L. P. gas units—and he's got no ax to grind for any one. His object is to provide the one that's best for you. For example, careful application analysis often proves that electric trucks are best for certain jobs because of these advantages:

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- * Smooth, vibration-free handling of fragile loads, less wear on truck
- * Quiet, clean operation

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capacity measurements progressively decrease, lung damage is indicated and the worker should be removed from the dust hazard.

Announce Noise Control Research Program

Claims totaling \$2 billion for deafness due to excessive industrial noise are in the courts today according to the American Standards Association. Noise levels in cities and industrial areas are going up to a degree which may endanger the mental and physical well-being of individuals in the vicinity. Noisy machines in factories are creating a newlyrecognized hazard that of accidents resulting from warnings and instructions misunderstood or not heard. And sales resistance to noisy industrial equipment is de-

Current pressure from legislative bodies of the states and industry for standard criteria to assist in remedying these conditions has led to the initiation of a research program in the field of noise measurement and control by a subcommittee of the American Standards Association.

The claims for compensation for loss of hearing due to industrial noise cannot be settled without adequate bases for determination of causes. Industrial noise limits cannot be set without a sufficient body of bio- and psychoacoustic data. Noise abatement programs are ineffectual without sufficient scientific information regarding cause and effect. These data are not yet available.

Objective of the new research program will be to explore whether criteria for noise control can be established in the light of presently available bio- and psycho-acoustic data, and to publish the findings. The committee will study the reliability and statistical significance of various sets of industrial data and data existing in governmental and university laboratories. It will review the methods by which they have been obtained and try to recommend noise limits for specific locations and conditions.

Walter A. Rosenblith, associate professor of communications biophysics of the Massachusetts In-

stitute of Technology, has been appointed chairman of the subcommittee to undertake the investigations with H. Wayne Rudmose, professor of physics at Southern Methodist University, as technical counsel and will be the main investigator. Professor Rudmose has done extensive research in hearing and architectural acousties, has been a consultant in the fields of architectural acoustics. noise and vibration control, and is the author of numerous articles and reports in the areas of acousties and psycho-acousties. He established and developed the Acoustics Laboratory at Southern Methodist.

Assistance to governmental, industrial and medical groups and allied fields in setting up safe limits of industrial noise, in a manner to protect hearing, will be the primary accomplishment of the research. The avoidance of medical and legal complications associated with the noise hazards of modern industrial and military equipment and establishments will also be one of the desired results.

The findings of the subcommittee will be published in the form of a Proposed American Standard, which will be given wide circulation for the purpose of receiving criticism. The approved American Standard on this subject will not be published until a consensus of all those concerned is well established.

"Dean of Safety" —From page 27

one," For his letter he received three cartons of cigarettes.

While luck has played an important role in his unusual escapades. Earl has possessed an uncanny knack of knowing how to protect himself. He claims he learned this art of self preservation while leading infantry platoons as a second lieutenant in France in the first World War. The fact that he finished thirteenth out of some 1,300 men at Officers Training School at Yaphank, L. I. indicates that a quick, fertile brain has had something to do with his success in avoiding disaster. His talent for leadership also helped.

And Earl is a born leader. As a feared, ten-year-old ring-



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Take a machine tool, surround it with oil-filmed flooring, and you've set the stage for a tragedy. This one—in a southern industrial plant—cost a skilled workman his arm.

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leader of one boy's group in St. Joseph's School in Huntington. he wasn't allowed to stay in the school vard before or after classes. Never a day went by without a fight, so Earl provided himself with some homemade brass knuckles that once were handles for his mother's washtub. The head of the school, Monsignor H. B. Altmeyer, called Earl aside after a particularly trying day and promised him a gold watch if he ever lived to be twenty-one. The Monsignor never paid off on the watch, but he did become Earl's close friend in later years.

Earl's flair for leadership manifested itself early in his Army career while he was just a buck private in 1917. He took it upon himself to punish a fellow soldier who was bullying the smaller men. For his efforts he was told he would have to pull two weeks of KP duty in the bully's outfit, which was notorious for its rough handling of recruits.

He was put to washing dishes with a machine that sprayed lye and steam on the dishes and then rinsed them off with water. Earl sprayed on the lye all right, but he forgot to wash it off. The next day half the outfit was in the hospital; the other half was too nauscated to move from quarters. After only 24 hours of KP, Earl was on his way to Fort Strong in Boston Harbor.

Here his military leadership reached its peak, in an unofficial way, of course. Earl spotted about 150 Communists parading with anti-war banners on Boston Common on a peaceful Sunday afternoon. Urged by patriotic pride, he rounded up a group that soon swelled to 500 soldiers and sailors, and started a free-for-all with the Communists.

By the time Earl's gang had burned all the banners and thrown every last Red in the Common lake, the Boston police and fire department had turned hoses on the mob. For this first defense of his country, Earl was seized as the ringleader, given 60 days confinement to the Fort, and received a considerable amount of newspaper publicity in the "Red Rebellion on Boston Common," as it was later called.

While the dashing, reckless Sang was enjoying life to the hilt, he was storing up experience that was later to make him an outstanding safety leader. When it came to serious fighting, however, Earl again distinguished himself overseas. He commanded a platoon of the Fourth Infantry at Chateau-Thierry, where he was machine gunned in the right knee and hit by shrapnel from German artillery at the same time.

Later, on July 12, 1918, at the Meuse Argonne, he was again shot through the right leg, and he swam across part of the Meuse River to draw fire away from his men. Emerging from the river, he jumped into a shell hole filled with chlorine-phosgene-mustard gas and was burned twice as severely by being wet. Army doctors told him that night that he would never become a father, and they insisted on performing surgery. Earl refused. Today he has four children and five grandchildren.

He sustained a third wound in hand-to-hand combat with a Prussian guard at Death Valley, Hill 304. Earl modestly admits to having engaged in hand-to-hand combat with 22 Germans during the war. Asked if he killed them all, he replied:

"I'm still here, ain't 1?"

It was this personal combat that started the daring but conscientious Sang thinking about the men who lost their lives because they were just plain careless. He was disgusted at the sight of his own men being killed because they failed to keep their rifles in shape, because they didn't look where they were going, because they didn't follow instructions, or because they took unnecessary risks. He decided that he was going to do something about this when he became a civilian, since the same principles of carefulness applied in any manufacturing shop. That may be why his favorite slogan today is painted in huge letters high on the wall of the mine car shop in Huntington: "ACF-All Careful Fellows."

Earl's two years in the army were the turning point in his previously carefree and hell-bent-forleather life. He felt that he was beginning to settle down and his thoughts went back to the ACF

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The growing use of TM Alloy Steel Chain is resulting in lower chain costs everywhere, according to the S.G. Taylor Chain Company of Hammond, Indiana. Special Analysis Alloy Steel and Taylor's unique chainmaking methods assure a product that has twice the strength, twice the safety factor and many times the life of wrought iron chain.

These features plus the fact that TM Alloy Steel Chain is heat-treated and never requires annealing...its resistance to shock at all temperatures...its ability to withstand work hardness and grain growth add to the success of this chain. A complete line of slings, in a variety of sizes, with a choice of alloy steel attachments is available from stock. Two types of patented magnet chain assemblies are also available. TM Alloy Steel Chain is manufactured to customer's specifications as well. Contact your distributor today or write Dept. 7, S. G. Taylor Chain Company, Hammond, Indiana.



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MANUFACTURING COMPANY . . . WELLSBURG, W.VA.

Huntington plant where he started out in 1909 as a rivet heater in the truck shop.

That was "the year of the panie," when jobs were scarce and grammar school kids went on to work rather than to high school. There were no child labor laws in effect and Earl started out at the age of 12½, looking like a youth of twenty. He worked 12 hours a day, six days a week for ten cents an hour. "That was darn good pay for a kid then," recalled Earl, "and it was all take-home."

From heating rivets he went to driving them, and he soon was promoted to office boy in the time office. By the time he was 15 years old he was assistant payroll clerk. It was at this point that his promising career with ACF almost ended. He was delivering a message one day to the foundry on his father's bike, riding like a six-day bike racer, except that he was fancy enough not to use his hands. He collided with Bill Oehms, the general superintendent then, who ended up with his face on the greasy bottom of the transfer pit. Earl sat quietly on a chair for 20 minutes while Ochms delivered a ranting oration on young Sang's carelessness. Ochms then issued an order. To this day, no bikes are allowed inside the Huntington

In a few years he became assistant to the chief timekeeper, but went to ACF Detroit in 1916 to help out on the shell program. A year later he returned to Huntington for a few weeks to assist his father, R. A. Sang, who then was chief timekeeper. On April 6, 1917, war was declared and naturally, Earl, then 20 years old, was the first man out of the plant gate to head for the enlistment office. His father and mother refused to sign waiver papers for him to enlist under the age of 21. so Earl simply told the recruiting officer he was of age.

His triumphant return to Huntington as a first lieutenant after the war opened new fields to conquer. An impressive six-foot-three figure in uniform, he was the object of "oos" and "ahs" of the girls at the Huntington Business School. Watching Lt. Sang walk down Ninth Street one afternoon

in November, 1918, secretarial student Lydia McLaughlin boasted to her classmates. "There's my beau." She had no idea who he was, but chanced to sit four rows behind him in a movie a few nights later. The next day she went down to the ACF plant to pick up her cousin and was introduced to Earl. That was it. Seven months later they were married and took off to Jeffersonville, Indiana, for a hilarious honeymoon.

It was on his honeymoon that Sang displayed a sample of the ingenuity that was later to make him a highly practical safety supervisor. Earl and his bride were visiting an uncle, who invited him across the Ohio River one evening for a poker game in Louisville. Earl was told to bring no money since his uncle was to lend him some at the start of the game. Never one to miss a card game, Earl arrived at the designated room in the Seelbach Hotel only to have his uncle admit him, walk out and then lock the door behind him from the outside.

Earl found himself alone in an unfurnished room in a strange hotel, with the telephone ripped off the wall, the key thrown into the Ohio River, no money, and a waiting bride over in Jefferson-ville. Undaunted, Earl removed the transom with a home-made screw-driver, crawled out, walked back across the trestle to Jefferson-ville—and even managed to beat his uncle back to the house!

These happy days were in July, 1920. It may be significant that practically every major event in Sang's life has occurred during the month of July. At any rate it was at this time that he became safety engineer for the plant, after serving in the time office since his Army discharge. He was faced with a severe safety problem because Huntington was then suffering from a frequency rate of 73.3. There were 108 lost-time accidents in this plant in 1920! Remember, industrial safety was a comparatively new field at that time. In fact, ACF safety records start with the year 1920.

Earl worked night and day in an "accident elimination program" as it was called then. He began to get dividends by personally mak-



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ing every worker safety conscious; his booming voice and incessant attention to detail had everybody hopping. He took each mishap as a personal failure and did everything humanly possible to see that the same accident never happened twice. In 1928 his efforts helped bring the Dickerman Safety Trophy to Huntington for the best safety record of any ACF plant. The day of the trophy presentation was the biggest day in his life. The frequency rate had dropped to a remarkable 1.2; there was only one lost-time accident that year!

Earl not only won the trophy for his plant, but he won the admiration and affection of practically every worker with his dynamic personality. He could chew the head off a man in one breath and turn right around and help him out in the next. His personal characteristics of integrity, sincerity, good naturedness, and thoroughness undoubtedly helped. But the underlying reason for the Dean of Safety's success has been

a deep affection for his fellow men that is barely discernible beneath his rugged exterior.

Being so good natured. Earl was often the target of the plant's practical jokers. At one time he was very partial to stewed rabbit, and decided one day to set half a dozen rabbit traps to catch the wild hares that were overrunning one section of the plant. During the night some of his fellow workers put an alley cat into one of the traps. By the time morning came the tomcat was furious and nasty. Earl licked his lips as he saw one trap had been sprung, and he reached inside without looking, to withdraw the prize. From that day on he has harped on the safety theme that a man is going to get hurt if he doesn't watch where he puts his hands.

His popularity increased to the point where a co-worker dared him to run for Justice of the Peace. He had no intention of taking the job if elected, so he did not campaign. He bought a Model T Ford, painted it a bright aluminum, dec-

orated it with banners and flags, and had a huge multi-colored Democratic rooster painted on the back of the flashy car. An antifaction candidate, he was a startling figure as he drove about town in this contraption.

When the ballots were cast Earl found that he had lost by only 48 votes. His two opponents immediately demanded a recount. When Earl picked up 42 votes in the first two precincts rechecked, his opponents immediately dropped the recount and settled for the first results.

In the next few years Earl devoted his full time to making Huntington's safety record a source of pride. He felt it was his individual responsibility to send every worker home at night safely to his family. He enjoyed his work a great deal because of the personal satisfaction he achieved in having his co-workers avoid hodily injuries. After all, few men have had to absorb as much corporal punishment as he did.

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jobs elsewhere and refused them because of his deep attachment to the company. He felt his place was with ACF, where his father had been for 53 years.

Earl went on to help Huntington win four more safety trophies: in 1938, 1940, 1948 and 1950. Four times the plant just missed winning it. Seven times Huntington had finished third. Their record has been consistently good because Earl knows that any letdown would be ruinous.

Because of Earl's long service. his philosophy, and his devotion to safety, a few years ago he was tagged "The Dean of Safety" by F. H. Humphreys, head of the company's safety program. Earl's personal help to younger safety men in other ACF plants has meant a great deal to the over-all company record. He'll talk safety all night long with anyone who will listen: he can converse with physicians and surgeons in their own terms, or tell a chemist how to improve a fire extinguisher. Name an aspect of safety and he'll deliver a lecture on it. He has a slight aversion to paper work, but when it comes to speaking Earl can talk with the best.

It was decided to show Earl some appreciation for his contributions to safety during his 43 years' service with ACF at last October's annual safety conference in Chicago. As Spencer Hopping reviewed Earl's many achievements, tears streamed down the stunned Dean of Safety's face. Rising to accept his award, Earl sobbed, "This is the first time in my life that I can't say a damn word."

Powered Flight From page 19

available in the most modern jet engines. The sound barrier, once a seemingly impenetrable wall, now seems little more than a passing thought and a new problem has arisen called the thermal, or heat, barrier created by friction due to the speed of the aircraft. Solution of this problem lies primarily in development of new metals and materials capable of withstanding elevated temperatures.

The changes in pressure, too, create their problems and as air-



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craft fly faster, they must fly higher in order to realize fully their potential performance. Human life cannot exist at these higher altitudes without cabin pressurization, temperature control, and oxygen supply. In order that the crew and passengers may be comfortable it is necessary that the structure be built to withstand internal pressures of more than a ton per square foot.

The solution of these problems is dependent on research and development. Then production teams must take over and build that solution into the aircraft. Each phase of research, design and production is inter-related and dependent in some degree upon the other.

That same relationship is found in production. In order to build today's more complex aircraft, we now need a higher percentage of skilled help. Aircraft can no longer be fashioned by a mass of hands: nor can the industry itself provide all the necessary specialized machinery for production of the many components which the public sees and identifies collectively as an airplane.

Many specialized industries contribute their part to building this airplane by providing the assorted gadgets. Breakdown in delivery of any of these parts from the supplier is as serious as breakdown within the aircraft plant.

The industry has long been noted for a good safety record. one born of teamwork within individual plants, where men and women have learned that they are dependent upon each other, upon their ability to work safely and stay on the job. In order to insure continual flow of materials and parts to plants from subcontractors, manufacturers have passed down experience and manufacturing methods to subcontractors, Not the least of this experience has been knowledge of how to work safely with materials and machines involved in modern aircraft manufacture. Probably no other single industry is involved with so many varied production devices.

The aircraft industry is many different industries under one roof, for in the final analysis the products and know-how of a whole host of industries are found in today's modern aircraft.

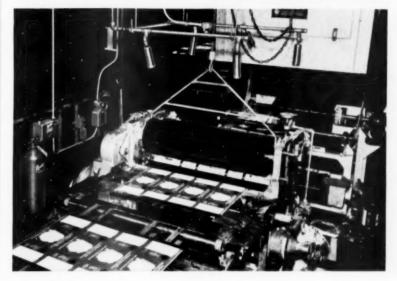
According to the National Safety Council's report on the 1952 Aeronautical Industries Safety contest, the number of man hours worked by the 24 major contestants across the nation has risen 45 per cent. In working 518 million man hours in 1952, the aircraft industry nationally reduced its accident record by 5 per cent. The over-all accident frequency rate per million man hours is now 2.91. In the Los Angeles area, air capital of the world, we have an even brighter picture. More than 269 million man hours were worked in 1952, an increase of 35 per cent over 1951. Accident frequency was reduced by 19 per cent to a rate of 1.78,

This didn't just happen through a stroke of good fortune. It is the shining result of effort by a lot of people involved in individual and collective safety programs. Obviously no one single industrial concern or safety engineer can expect to improve his safety program if he does not participate in the "Exchange of Safety Ideas." As a rule, results of any safety program will depend on what is put into it: both your own ideas and those obtained through the exchange of safety information. The worker is now safer in the plant than he is at home, in transit, or at play,

Continuous efforts are being made to promote safety of the aircraft and its occupants in flight. Here, as in the manufacturers' plants, safety is developed by evolution rather than revolution. Again it depends on the interdependent activities of a lot of people. The Commercial Air Lines. the Civil Aeronautics Administration, the Air Force, and the Navy are all individually and collectively carrying on very active flight safety programs designed to protect the lives of airborne personnel and to conserve valuable aircraft and materials which daily become more and more costly.

The USAF Directorate of Flying Safety at Norton Air Force Base, San Bernardino, is an activity whose sole objective is air safety. It is well organized, broad in

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ments, subdivided into crews of specialists whose primary job is accident prevention and analysis. When a crash occurs important questions arise: "What happened? Why did it happen? What can be done to prevent its happening again?" These crews of specialists augmented by expert personnel assigned to these duties by manufacturers of the aircraft endeavor to find out and they do. The end result sometimes requires changes to the aircraft itself or the manner of its operation. More often such investigations point to personnel failures. Inevitably, we come to the ever

scope, composed of many seg-

Inevitably, we come to the ever present human equation and the need for further study in what has been called "human engineering." As our aircraft and manufacturing processes become more complex, study of the mechanism of the average man in relation to design of the machine which he is required to operate will be of increasing importance.

We all know that man has one head, two eves, two hands, two feet. His response to demands cannot be guaranteed within plus or minus five per cent; his temperature cannot be allowed to vary more than a few degrees; his pump must operate at constant speed and pressure; his hydraulic system is accustomed to relatively stable conditions: his pressure containers, both hydraulic and pneumatic, have limited capacity; his controls are subject to fatigue, illness. anger. inattention. glee, complacency and impatience.

This mechanism was originally designed to operate in a stone age. Today's problem consists of permitting this ancient mechanism, designed to function within narrow tolerances, to control its destiny and that of others in a strange environment of very wide ranges in complexity and operating conditions.

It is no wonder that we have personnel failures and errors in judgment. The remarkable thing is that through training and collective effort the safety record in flight and on the ground is steadily improving.

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reaction and decision can now be taxed to such an extent that it is no longer possible to take full advantage of the machine unless control of the machine can be tailored to limitations of the human mechanism. J. H. Kindelberger, Chairman of the Board, North American Aviation, speaking before the California State Chamber of Commerce in December 1952, gave a very brief idea of what that little task entails,

"First, the industry creates a machine that flies at or near the speed of sound at very high altitudes. Next we must give the pilot something to breathe and create an artificial atmospheric pressure for him. Next we have to cool or warm his body as the ambient temperature varies. We must provide for his physical volume and weight and comfort, and we have to put in scores of devices to insure his survival in an emergency."

"Finally, because his senses are not sufficiently acute and his reaction time is not fast enough to enable him to guide the machine in all the split-second phases of its military mission, we must install devices which not only control the machine automatically but inform the human pilot what the machine has been told."

Owing to limitations and inadequacies of the human pilot, it is entirely possible that sometime in the future certain military aircraft will be uninhabited and will be controlled entirely by a target seeking electronic "brain." We have the early stages of this trend in the present guided missile development.

If the rapid pace of development which has occurred since World War II continues, we will see many pronounced changes in aircraft and aircraft manufacturing in the next decade. The trend is rather well defined and some of us will perhaps witness flights of atomic powered aircraft which will open up a whole new field of aeronautical development, dwarfing in magnitude all that has heretofore been accomplished.

The jet engine revolutionized aircraft design following World War II. The nuclear fission engine may do likewise once we find out



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One thing is certain: as we progress, a wholly new series of problems involving safety are inevitable and will tax our brains and ingenuity to find acceptable solutions. No one has, or could conceivably possess, all the answers. Final results are dependent on each and all of us.

Finally, "Learn from the mistakes of others - you won't live long enough to make them all vourself."

Lessons from Disaster

From page 21

In the field of marine accidents and disasters, there have been for many years orderly procedures for investigation, determination of fault and recommendation for corrective measures. Our system of Aids to Navigation, the Rules of the Road, all the provisions of the International Conventions for safety of life at sea, the Navigation laws of this country, and the regulations issued under their authority are the results of this distillation of marine experience into practical policy for the prevention of accidents and disasters.

The Titanic disaster paved the way for the International Conference resulting in the 1911 Convention for Safety of Life at Sea. with many new procedures including the International Ice Patrol and regulations requiring more and better lifeboat equipment. The ship's operator may complain about the cost of the requirement. but in the fact of what happened and the carefully-considered study made following the disaster, can hardly deny the justification. The same careful study and consideration is given to all requirements before adoption, in accordance with their importance and their impact on shipping.

Wartime sinkings provided British authorities with many opportunities to evaluate life-



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saving equipment and techniques in actual practice. Although the unusual conditions of war introduced some special considerations, many of the results are of value in peace. Because of wartime restrictions on investigation and for publication, much of this valuable material is never developed or is hidden in classified files.

However, the British had developed two very effective procedures for securing information from survivors on the effectiveness of lifesaving techniques and equip-

The Ministry of War Transport, in connection with their official investigations of sinkings, questioned survivors on these matters. Extracts from these official investigations were, in general, quite complimentary with respect to the equipment furnished the British Merchant Marine by the Ministry of War Transport. The Ministry took considerable pride in the design and satisfactory manner in which their equipment functioned,

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favorable comments because they would be of no value in his effort to improve the procedures or the equipment.

Probably a fair evaluation of equipment was somewhere between the favorable reports of the Ministry of War Transport and the critical comments of the Trade Section. Properly evaluated, both are of considerable significance in improving equipment.

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quirements for the prevention of casualties and minimizing their effects, a multitude of original reports, suggestions and recommendations are available. They are filtered through a number of committees, trade associations and governmental agencies until, finally when they are placed into effect either as a regulation, statutory requirement, or provision of an International Convention, they represent the considered judgment of many experienced men in the industry and in Government.

This most necessary, realistic evaluation is best obtained with complete cooperation of government and industry where the technical know-how of industry is made immediately available to the government.

The cooperation of industry with the Coast Guard in developing regulations to meet the hazards introduced in transportation by new materials, particularly fuels, chemicals and explosives and new methods of handling has been most helpful.

This has been particularly true of the American Petroleum Institute and the tanker industry generally. Their problem has been the most difficult and has been solved most effectively because of the fine interchange of information between the Coast Guard and the Institute, and the development of the most sympathetic cooperation.

Other phases of the marine industry cooperate, but sometimes with a little hesitancy. Willing and enthusiastic cooperation shown by the tanker industry would pay off as well in other phases of the marine industry.

In this country the original material may be the recommendation of a board investigating a casualty; it may be a recommendation from industry either from management or labor, or it may originate in other ways. After screening through the office of Merchant Marine Safety in Coast Guard Headquarters, it will be considered by the Merchant Ma-

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rine Council. Any important change will always be the subject of a public hearing and final determination of the Merchant Marine Council will be based on consideration of all comments developed at the public hearing. This is the procedure for requirements issued as regulations based on the statutory authority to issue regulations.

Any change in the basic law must pass through the complicated procedure required of all Federal legislation.

In the case of requirements of International Conventions, a long, drawn-out procedure of developing a United States position on a requirement, consideration in an international conference with adiustments and compromises leads to a convention which represents the consensus of opinion of the national delegations, but which does not become effective until ratified by the required number of participating nations.

In this respect, the marine industry has a less effective pro-

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cedure than the aviation industry with a small, permanent organization, International Civil Aviation Organization. International Marine Consultative Organization, if and when it begins to function. should improve this situation. With a permanent organization. better and quicker adjustment to changed conditions should result.

Any requirement is carefully considered with every opportunity afforded to interested parties to comment and object. The final result is almost always a minimum requirement which has been compromised on more controversial points. It should be accepted as a minimum requirement.

In investigating disasters as distinguished from accidents, there is usually found to be a train of circumstances, the change of any one of which would have prevented the disaster. This is true in almost all cases except those due entirely





FOR

to natural causes or pure chance, in which there are no other contributing factors.

In the case of the Vestris there were many acts of omission or commission in the several days before the situation reached the point where it was impossible to save the lives of those who were drowned. Any one of these acts would have changed the course of events and, probably, saved the lives of those lost.

One act is of particular significance, and the one which seems to have been most directly responsible for the disaster. That was failure of the master to call for help in time. I quote from what is purported to have been the instructions to masters issued by the line operating the Vestris:

"In case of a serious happening to one of the vessels of the line, the master must carefully consider the actual amount of peril there may be to those under his charge, and then judge whether he will be justified or not in fighting his own way unaided. His being able to succeed in this will always be considered a matter of high recommendation to him as a master."

Whether this instruction had any bearing on the master's delay in calling for help will probably never be known. It is reported that the master was in line for promotion at time of the *Vestris* incident.

This is an extremely unfortunate viewpoint on the part of management. In these days of radio and more realistic evaluation of duties of mariners to each other, and more realistic viewpoints with respect to salvage, that viewpoint is less common now than 25 years ago, at the time of the case. However, it still persists. Safety of vessel and personnel aboard is of such paramount importance that any delay in asking for help, when there is a probability that help is needed, is criminal.

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Force eaught in a typhoon in the west Pacific in 1943 was a marine disaster resulting from a chain of events which seemed to move irresistibly to the final disastrous conclusion.

There were large vessels with a number of destroyers. Weather information for forecasting was neither timely nor accurate. Senior officers in the larger vessels directing the operation were not aware of how serious the condition was becoming on the smaller vessels. Commanding officers on the smaller vessels hesitated to report worsening conditions until the situation had become so critical that no corrective action possible was effective.

More lives were lost, more material damage was done to the Naval Forces of the United States than in any other incident, except Pearl Harbor. It was a disaster to our forces due entirely to natural causes but it had the same adverse effect on our military effort as a major defeat by enemy action. The only fault was apparently the common failure on the part of both seniors and juniors to recognize that weather and the sea were entitled to more respect; that man, with all his recent technical advances, had not yet become free to ignore wind and weather.

Another extremely serious disaster was narrowly averted: A large Naval vessel with over a thousand persons was proceeding, as a privileged vessel, and approaching one of our large liners which had a large passenger list. The vessels knew of each other's presence when they were separated by over 15 miles. It was the obligation of the passenger liner, the burdened vessel, to keep clear and, likewise the obligation of the Naval vessel to continue its course and speed, at least until the danger was so great that action on her part was necessary in extremis. Both vessels continued course and speed until collision was so imminent that the Naval vessel





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turned away with a full rudder and made a complete circle to keep clear. If these ships had collided, there might have been a tragic loss of life, loss of two vessels, and with no possible excuse for the failure to obey the simple, clear-cut requirements of the Rules of the Road,

The responsible officer on the merchant vessel was thoroughly competent by any standard except in one respect; he did not have a full appreciation of the possible consequences of his failure to take proper action.

A very large percentage of our collisions at sea, resulting in loss of life and serious loss of property, can result from just that attitude in the failure of officers to follow the simple, clear-cut requirements of the Rules of the Road.

Recently, in the Gulf two vessels collided in fog with loss of life and serious damage to both vessels. Violation of Rules of the Road was definitely responsible.

The fact that both vessels had radar has caused some thoughtless persons to question the value of radar. Radar was found to be a most useful tool of naval seamen in the last war; it is a most useful tool for merchant seamen now: but it is not a magic tool whose mere possession insures safety from collision. If you use a sharp axe carelessly or unskillfully you may cut off your leg instead of the tree. In the same way, the valuable information furnished by radar, and available in no other way, must be used intelligently.

In periods of poor visibility, when radar is needed, an additional officer is needed on the bridge to use this instrument. A procedure of training this officer might include conning the ship in clear weather, using radar information alone, with another officer standing by to take over if needed. This training in clear weather would prepare for operation in poor visibility with the radar observer conning the vessel on radar information alone, but with the officer responsible for the watch ready to take over when sound signals are heard.

The most important consideration to be constantly kept in mind is that Rules of the Road require reduced speed in fog and certain definite procedures to be followed in all contingencies. Possession and use of radar does not relieve any officer of the obligation to follow these rules. If he has radar and follows the Rules of the Road. collisions in the open sea should be finally ended. If he uses possession of radar to excuse or alibi his violation of Rules of the Road. results can only be unfortunate.

Management must go beyond the immediate requirements of regulation and use imagination in the application of experience in related circumstances. In the wellknown Iroquois fire in this country, in 1903, 575 people lost their lives in panic and from fire. As a result, many fire-trap theaters were closed and others were made safer by elimination of flammable material, the provision of more exits, and limitation of occupancy. These regulations specifically applied only to theaters.

In Boston in 1912 there was the notorious Cocoanut Grove disaster when 498 people lost their lives in panie and from fire from almost exactly the same causes as the Iroquois disaster; easily flammable decorations, a crowded space, limited exits and all the conditions for panic. The regulations that had been applicable to theaters were re-examined and, in most communities, similar regulations were made applicable to restaurants, night clubs, and other public places, and enforcement procedures were strengthened.

A few years later in Hartford

several hundred people lost their lives in a circus fire where the tent had been made waterproof, using materials which made it dangerously flammable. The circus had on its staff some of the best brains in circus management but. as a result of failure on the part of this management to apply the experience of previous fires to their own business, their enterprise was almost wrecked.

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ness may not be quite as great as in the circus business, but they are certainly greater than average. Any business engaged in transportation of the new fuels, new chemicals, new explosives, with the concentration of personnel and property tied up in a modern ship must, in its own interest, use foresight and imagination in preventing potential disasters rather than awaiting the application of gov-

ernment regulations which usually follow a disaster. It is impossible for a governmental regulatory body to use imagination and foresight to the extent that management itself can apply them.

Ship Safety Programs

What, specifically, can be done to improve the record of preventing accidents by the responsible organized agencies, particularly the Coast Guard on the one hand and the ship operator, who has the basic responsibility, on the other? Admiral Shepheard at the annual meeting of the National Safety Council in October 1952, gave seven advances in ship safety programs within the past year:

 Formation of the National Cargo Bureau, Inc., to serve as a clearing house for shippers and ship owners as to the proper stowage of dangerous cargo.

 Promulgation of cargo gear regulations to be administered by the American Bureau of Shipping and designed to prevent accidents to long-shoremen and harbor workers.

 Requirements for further strapping and strengthening of T2 tankers built during the war, to make them more seaworthy.

 Preparation of a manual for guidance of ship masters in the proper distribution of cargo and ballast to avoid undue stress of T2 tankers.

 The first major revision of the Coast Guard's General Rules and Regulations pertaining to design, construction, operation and manning of merchant vessels.

 A program to correct unsafe working practices by harbor workers and the crew on shipboard.





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7. Completion of the SS United States, which exceeds international and national standards in safety design and construction.

These advances indicate type of activity in which the Coast Guard will continue to press for improvement. It will be noted that the Coast Guard has sponsored and encouraged agencies like the American Bureau of Shipping and the National Cargo Bureau to handle matters which are properly so handled. Also, that the Coast Guard has pressed for, and obtained, substantial improvement in international standards requiring foreign-flag vessels to meet standards approaching, as closely as possible, the requirements of American flag operation, I don't think there should be any question about always keeping America in the vanguard of advances in design for safety.

The Coast Guard will continue, as it has in the past, to press for improvement in safety measures on American-flag vessels with the concurrence of industry and the public; and with due consideration of technical advances and practical requirements, will endeavor to raise the international standards to approximate ours.

The Ship Operator

As for industry, and in particular the ship operator, the following is suggested:

Set up the handling of accidentand disaster-prevention, as a function of top management where the common sense, good judgment and intuitive ability to separate the important from the unimportant will permit safety to be considered with public relations and selection of top-level personnel as basic to the success of the enterprise, and above short-sighted economies with which the lower echelon of bookkeepers and record-makers may desire to "hamstring" it. This is true of all industry, but particularly true of ship operation, with hazards of the sea and concentration of risks in present large resels

Develop a policy which proceeds on the basis that government requirements are minimum requirements which should be rigidby followed without any attempt



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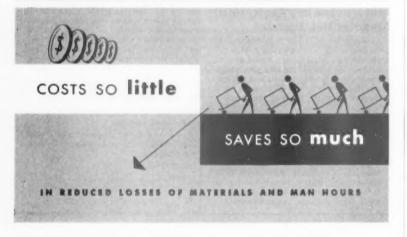
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at short-cut or evasion; and that the ship operator, in his own judgment, will go beyond these governmental requirements as good business in actual savings in losses, reduction in insurance coverage required or premiums paid, in better employee relations and increase in public good will.

In implementing this policy, the field in which the most worth-while results may be expected is in the field of eliminating human error. New devices and elimination of material deficiencies are important, but progress remaining to be made in that field is limited in comparison with improvement possible if human error could be materially decreased.

Selection of personnel for competence is important. In that field licensing and certificating procedure methods of the Coast Guard insure only that the holder has met the minimum requirements. Successful management will go beyond that and select personnel to meet its own standards.

These are principles rather than specific remedial measures and an over-simplification of a very difficult and challenging problem which justifies the best brains of the industry to solve. The loss of 38,000 lives on the highways is a challenge which leadership in America must pick up and meet. The loss of lives and valuable property in marine disasters and accidents due to human error alone is much more than it should be.

We hope the tragedy of the *Titanic* may never be repeated. But we can never be sure that some train of circumstances may not, one by one, circumvent all the safeguards we have set up until disaster strikes again. If it happens, unhappy will be many an individual whose human error, which seemed entirely blameless at the time, contributed in any measure to the relaxing of any one of the safeguards.

Conrad said, "The sea has no generosity, no display of manly qualities, Courage, hardihood, endurance, faithfulness has never been known to touch its irresponsible consciousness of power. The ocean has the conscienceless temper of a savage autocrat; spoiled by much adulation, he cannot brook the slightest appearance of

defiance and has remained the incalculable enemy of ships and men ever since ships and men had the unheard of audacity to go affoat together in the face of his frown. From that day he has gone on swallowing up fleets and men without his resentment being appeased by the number of victims, by so many wrecked ships and wrecked lives. Today, as ever, he is ready to beguile and betray, to swallow and to drown the incorrigible optimism of men who, backed by the fidelity of ships, are trying to wrest from him the fortune of their lives, the dominion of their world, or only a dole of food for their hunger. If not always in the hot mood to smash, he is always stealthily ready for a drowning. The most amazing wonder of the deep is its unfathomable cruelty."

Conrad's colorful language indicates the respect with which the ship operator should regard the hazards of his undertaking; fill his organization with men who know and respect the sea from having lived on and with it; select these men on the basis of their competence and good judgment in meeting the operational problems of ship management.

When these requirements are met, many of the business and financial problems solve themselves. Re-instill into the American Merchant Marine the spirit it had when it was the finest sailing the sea, when men knew the risks they took and took them willingly, but with no tolerance of any weakness in either the men or the material serving with them.

Squiggler Corp. Award From page 29

"This is Bill McDill, P. D.," he said. "We're going to get an Award of Honor from the Council.

"Good work, McDill!" said the Head Man in his best bedside manner. "Enjoy the week-end and come in and see me Monday afternoon." To himself he said: "You ride these fellows' rumps a little bit once in a while and you get things done."

Monday morning, Horace Morris read the carbon copy of Bill McDill's latest letter to the Council. "But Mr. McDill." he said.





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"they can't use our contest reports for the Award Plan. We don't report severity rates in the contest."

"And why not?" snapped Bill McDill. "When did we quit, and why?"

"We never did it," said Horace Morris. "Nobody ever does." "Oh," said Bill McDill. "Well,

"Oh," said Bill McDill. "Well, forget it, kid. Those letters I wrote Friday will have the desired effect. We'll have that award before you know it."

The letters surely did have an effect. They confused the sanity out of Benton Beaton, overworked statistician at the Safety Council. For a while he just sat and fed pulverized tooth enamel to his new ulcer. Finally, when he was sure he would be able to dictate without using profanity, he spoke into his dictaphone.

"Dear Mr. McDill: I recall receiving your award inquiry last week and sending you a copy of the award plan and some forms. I now have your two letters of last Friday, one of which castigates us for denying you an award, and the other which thanks us for granting you an award but then castigates us at greater length for not sending it to you sometime last year so that you could have had it on January 2.

"As you know from reading the Award Plan, injury frequency and severity are both evaluated. This means that contest reports of frequency alone cannot be used for this purpose. If you will fill out and return the annual reporting form as soon as possible, and if it justifies an award, then, while we can make no guarantee, we will do our best to get the award to you in time for your banquet. So doing will delay the awards of others whose need is less urgent. but we understand the desirability of having the award reach you (if you win it) in time for the banquet which has already been scheduled. In no case will the award be sold to you. Awards are given free of charge, but only if they are earned. Sincerely, Benton Reaton.

"Judas!" stormed Bill McDill, when he got the letter on Wednesday. "Six days since we first wrote them, and now they get around to asking us for a report! Morris, where are those report forms that came with their first letter? Did you throw them away?"

"No. Mr. McDill," said Horace Morris. "I took them and filled them out, because I knew the Council would have to have the information. I mailed one copy Monday afternoon and put the other copy in our file."

"Good," said Bill McDill, with unexpected tenderness. "Remind me to get you a pint of Old Cruddy Bond next Christmas."

The next day, another letter arrived from the Council, Horace Morris saw it first because it was addressed to him. Then he took it in to his boss, Bill McDill, It

said:

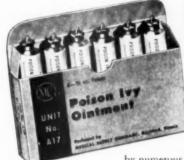
"Dear Mr. Morris: Thank you for your letter written Monday and explaining the need for rapid handling of this matter. I was aware of the need for extreme haste, because I have had some correspondence with an assistant of yours, Mr. Bill McDill. I processed your application after work on Tuesday and typed your Award of Honor notification myself. It is enclosed. An inscription form is also enclosed for your use in showing us the exact wording and spelling of your company name. But it will be necessary for you to give us the inscription by telephone if the award is to reach you in time. When you call us, we will call the award maker, who is most cooperative. He will pull one of his artists off another job and have your award lettered by hand rather than processed in the usual way. This is more costly to us, but it will save time. Then he will airmail it directly to you. Sincerely, Benton Beaton.'

"Judas P. Priest!" shouted Bill McDill. "What an uncooperative outfit! It's a good thing they're not trying to run a business that way. They leave everything until the last minute and then they give us the rush! Get 'em on the 'phone."

He waited, "There is Mr. Beaton," said the operator.

"Hello, Ben? . . . How are you, Boy? . . . Fine! Well, this is old Bill McDill over at Truncated Squiggler Corp. . . . Oh I'm fine; everything is dandy here since we

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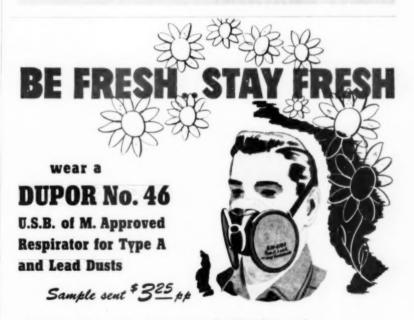
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got that award . . . I called to give you the inscription, Ben, boy. We want to dedicate it to our company president, good old P. D. Quickenham. So on the first line put 'Percival D. Quickenham,' On the second line put 'President.' On the third line put our company name. And on the fourth line put '1942 to 1952.' That's how long he's been President...Well, then just 1952 if that's all we won the award for. We wouldn't want to . . . Only three lines? Well, leave off the dates . . . Why not? . . . Of course the employees had a part in it . . . Well, then just inscribe it 'Truncated Squiggler Corporation.' . . . Yes, that's the whole companyjust the one big plant. Okay . . . Fine . . . Okay . . . Good bye.

Overworked Benton Beaton was able to forget Truncated Squiggler Corp. for a couple of days. Then he got a call from overworked Bill Durham of the Council's publicity staff, who said: "Ben, I just got a call from the President of Truncated Squiggler. He wants to know how many plants in the Northwest United States have won the Award of Honor for last year."

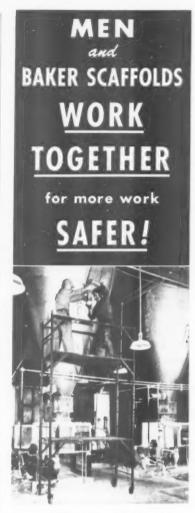
"I don't know, Bill," said Benton Beaton. "There are 1952 reports that we haven't processed yet. There are 1952 reports that we haven't even received vet. Some of them will qualify for awards.'

"Well, what he's trying to do is prove that his company is the only one in his state that has won the award, and if it is, then he wants to take in adjoining states."

"Did you ask him if he wants to come down and read every case in our files? That's what it would take. We can't stop and do it, Bill. Other people have to get their experience evaluated too. He's getting his award, and he got darn good special service, I might add. If we had to give everybody the service we gave him, we'd need three times as many people as we have."

"Well," said Bill Durham, "do you remember off-hand if any other companies in Montana won the same award?

"How many other squiggler companies are there in Montana?" asked Benton Beaton. "I didn't even know Truncated was there until last week."



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"I mean companies in any business," said Bill Durham.

"Yes, there have already been two winners in Montana that I can think of." Benton Beaton said. "A mining company and a lumber company. And there may be others "

"How about other squiggler companies in the United States?" "Yes, Mid-States Extruded

Squiggler Company."

"Well, that's going to make him mighty sad," said Bill Durham. "He wanted to prove that he was the only plant in this state, or this industry, or this year, or this something that had got the award.

"That's dandy," said Benton Beaton. "When they weren't sure of getting the award, their safety man cried that awards ought to be easier to get. Now that they have one, they want it to be the only one made. Tell them it's the highest award the Council presents. It recognizes outstanding achievement. They're good because they got it, but other companies can be good too. Tell him he's the only plant in Pinwhistle, Montana, who won it and one of the 300 winners out of the thousands of plants in the USA."

"Can he claim his was the first squiggler company among the squiggler companies who got it this year?" pursued Bill Durham.

"Yes, he can claim it, but we'll deny it." said Benton Beaton.

"Okay, thanks; that's what I wanted to know," said Bill Durham.

"Sorry I couldn't give you more satisfaction." said Benton Beaton.

Next Benton Beaton got a call from Bill McDill, "Look, Beaton," said McDill. "What's the idea of notifying Mid-States Extruded Squiggler about their award before notifying us about ours?"

Benton hadn't been feeling well even when the day started, so he said: "Would it have been better if we had notified you first, or should we have notified you both at the same time?"

"Well, I guess both at the same time would have been okay," said Bill McDill, fortunately missing the malice in Benton Beaton's question. "But you should have held theirs until we got ours."

"They had theirs weeks before



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Kalamazoo, Safety Services Inc.

NEW JERSEY—E. Orange, New Jersey Safety
Equip. Co.; Newark, Safety Specialists; Newark, Safeguard Industrial Equip.



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warhs Safety Supply; Hochester, Rochester Safety Equipment Co.; Syracuse, A. E. Hal-perin Co., Inc. 0H10-Akron, Acme Safety Products; Akron, Akron Welding & Spring Co.; Cleveland, Hadchaugh Fetzer Co.; Toledo, Acme Safety

OKLAHOMA -Tulsa, Guardian Safety Equipment

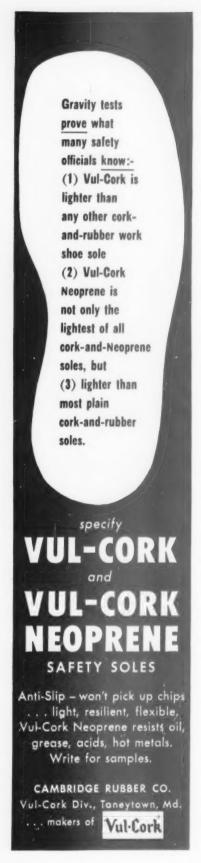
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we knew you were going to apply for one," replied Benton Beaton.

"That was sneaky of them," said Bill McDill. "Did you let them know about the Award Plan before you did us? It looks like favoritism to me."

"The plan is two years old." said Benton Beaton patiently. "It has been circulated widely, and there has been an article about it in NATIONAL SAFETY NEWS every month for more than a year. I'm sorry you didn't know about it."

"Well," said Bill McDill. "That'll be all right this time. But you ought to hold all notifications up to a certain time so that everybody who reports before then can be notified at the same time."

"That was done, Mr. McDill, The Plan provides for that," said Benton Beaton wearily. "I believe that if you would read the plan some time, or discuss it with Mr. Horace Morris of your company, you would obtain a better idea of what we're trying to do."

"Maybe so," said Bill McDill, "but you ought to raise the standards for that award so not every Tom. Dick and Harry can get one. It doesn't mean much if every plant in the country has one hanging on the wall. What did Mid-States get theirs for, their grading department, or their office staff, or something else that has no hazard connected with it?"

"No," Benton Beaton replied. "It was for their entire plant. Within-plant departments are not eligible for Council awards, even if their experience has been good. The reason for this is the one which you have just expressed so clearly."

"Whole plant, huh?" said Bill McDill, somewhat taken aback. "Well, look, now, Beaton, let's get down to cases. Didn't we win by a wider margin than they did?"

"Mr. McDill," said Benton Beaton. "We dislike to compare and contrast the performances of our Award of Honor winners. All have satisfied high standards. All are receiving the highest honor given. Each has a sufficiently good record that it has nothing to gain by belittling others or the awards of others. We who preach the safety gospel wish there were more such records, not fewer. Moreover, minor rate differences have no statistical reliability, mere chance can cause larger differences than these. Your award is pride-worthy and news-worthy in and of itself. It is not necessary and it is not correct to contend that it is the best, or the only, Honor Award ever presented.'

"Well, just so a plant has to do something worth while before it gets one." began Bill McDill. "I don't think . . ."

But Benton Beaton was warming up to his subject. He interrupted: "We are fully aware of the importance of preserving the integrity of the awards by keeping the requirements high. I might point out that your own company's award eligibility was based upon the report of its excellent experience as filed, in compliance with the plan, by Mr. Horace Morris and not upon your representations that the award was wanted, or needed, that it would be useful, that it should be given even if the standards had to be lowered, or that it should be sold to you. You will be glad to know. I am sure, that the standards are never lowered and never ignored."

"That all sounds mighty fine. I am pleased to know that this award really means something, Bill McDill said, with the tone of a man who concedes all that has gone before and still has one more devastating point to make. "But don't forget this! Mid-States makes small extruded polystyrene squigglers, and we make solid brass, case-hardened, truncated squigglers—some of them as large as a wash kettle-and that is a lot more hazardous. To get the award, they should have been required to have a lot lower rates than we were: isn't that right?"

"Mr. McDill." said Benton Beaton with the relieved feeling of a man who has ridden out a storm by dint of sheer patience, "that is not only right, but that is also what happened. Congratulations again, upon your outstanding achievement. We're all keeping our fingers crossed for you in 1953. The best of luck to you!"

"Thanks," said Bill McDill. "We'll be around for another award next year. Good bye, and

thanks again."



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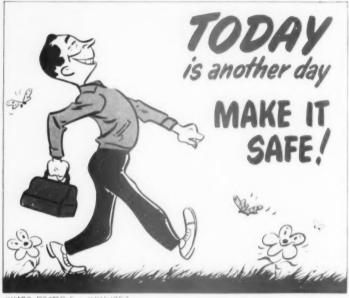


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JUMBO POSTER FOR JULY 1953

The Jumbo poster, issued monthly, is designed for outdoor use and is available to members on annual subscription but is not stocked. Its actual size is 9° 11° by 11° 8°

THE 1953 Poster Directory contains miniatures of 756 posters—top-notch selections on a great variety of subjects. Extra copies available at 50 cents each—write Membership Dept., N.S.C.

Posters miniatured on these pages are new—shown here for the first time.

Those posters illustrated in one color on the following two pages are actually printed in two or more colors.





9887-A 812x1112 9783-A 812x1112

The two new four-color posters (above) are illustrative of the 72 four-color posters shown in the 1953 Poster Directory.



9920-C 25x38

Above new "C" poster, issued monthly, is indicative of the other two color posters—shown in one color on the following pages and in the 1953 Poster Directory.

Electrotypes of poster miniatures on this page are not available, nor can payroll inserts be supplied.

Posters below are printed in two or more colors (Available only in sizes indicated)





17×23

9891-B















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V-9912-A 81/2×111/2



V-9913-A 812×1112



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Safety Shoes at Home, Too

Wearing safety shoes at home makes as much sense as wearing them on the job, to a worker at the Naval Supply Center, Norfolk, since the steel toe cap in his safety shoe saved him from serious injury and possible loss of his foot in a power lawn mower.

He failed to notice that the mower was in gear when he put his foot against one of the wheels to keep it from rolling. The motor started, rolled over his foot, and the sharp motor blade cut the leather top out of the safety shoe, leaving nothing but the protective steel toe cap.

Calendar Contest Winners for April

First prize in the National Safety Council's Safety Calendar Contest goes this month to Ariel Christiansen, Electro Metallurgical Co., Orenco, Ore. The theme in this contest was the eye is blind if the mind is absent. Mrs. Christiansen's line was adjudged the best of all those submitted. It was: Rendered stupid by Cupid—that's why!

Second prize went to Sam Posey, Gulf Oil Co., Houston, Tex., for this

Lore light's fine, but it's not to drive by.

Third prize was awarded to Mrs.
C. A. Frisinger, Sinclair Pipe Line Co.,
Independence, Kan., for the following

Lover boy, that's a sure way to die!
The April limerick was:

On the highway, a deep-in-love guy.
With a far-away look in his eye,

Let his thoughts stray too far, Lost control of his car

Thirty \$5 awards were issued to: B. C. Sibley, Recorder, Tennessee Coal & Iron Co., Ensley, Ala.

Karl Clapper, General Foreman, Duluth Missabe & Iron Range Railway, Proctor, Minn.

Mrs. Earl Boyle, Buckeye Steel Castings Co., Columbus, Ohio.

Mrs. Charles H. Stone, Macon, Ga. (Individual Member)

Mrs. Ernest M. Grider, Allision Div., General Motors Corp., Indianapolis, Ind. Mrs. Daniel J. Homan, Water Dept., Denver, Colo.

Alice Wheeler, Secretary, B. B. Chemical Co., Middleton, Mass.

Arthur V. Long, Tulsa, Okla. (Individual Member)

Mrs. R. L. Denson, E. I. duPont de Nemours Co., Kinston, N. C. Mrs. Betty M. Davis, Rosemead,

Calif. (Individual Member) Mrs. Harry W. Marcy, Narragansett

Electric Co., Providence, R. I. J. C. D. Oosterhout, Research Chemist, The Texas Co., Port Arthur, Tex.

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Here's How *YOU* can Prevent Production Losses Caused by Dermatitis

. . . Reduce Medical Costs and Improve Industrial Relations

Dermatitis actually wastes *more* man hours and medical treatment dollars than the more sensational industrial "accidents".* Furthermore, dermatitis cases cause revulsion, not only among afflicted employees, but their co-workers as well.

You can prevent these distasteful situations by providing the *proper* protective garments and *insisting* that personnel in your plant always wear them when in contact with irritating substances.

Gloves are especially important in reducing dermatitis cases and your production managers will thank you for choosing the *right* gloves for each job. Comfortable fit, hand freedom and long wear pay off in employee good will, increased production and lowered operating costs.

PIONEER liquid-tight Stanzoil® gloves, made of oil and acid resistant non-allergic DuPont milled neoprene, are reducing hand dermatitis hazards in hundreds of plants all over the world. 32 safety styles, weights, size and colors... PIONEER catalog shows you at a glance how to choose the most efficient and economical glove for the job.

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*Occupational Hazards, December, 1952

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Francis O. Hatler, General Clerk, Greater Northern Railway, Great Falls, Mont.

Louis Grossman, Chemist, Stein-Davies Co., Long Island City, N. Y.

Norma J. Rasmussen, U. S. Fidelity & Guarantee Co., Baltimore, Md.

Max Levin, Postal Clerk, U. S. Post Office, Milwaukee, Wis.

Charles J. Ellis, Superintendent of Production, Socony Vacuum Oil Co., Inc., Detroit, Mich.

Richard Rondi, Plant Purchasing Agent, Frankfort Distilleries, Inc., Louisville, Ky.

Daniel A. Youngs, Challenge Machinery Co., Grand Haven, Mich.

Everist F. Speltz, Biller, Minnesota Mining and Manufacturing Co., St. Paul, Minn.

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Pat Benadum, Ohio Bell Telephone Co., Columbus, Ohio

Faith plus Works

-From page 37

excellent work even with little technical aid. Given the right approach, heart-power can equal atomic energy.

During my last study-tour, I met a young Swiss worker who was at one time a successful communist leader but is now a full-time volunteer in the moral rearmament movement. He had the courage of his convictions, and his happy outlook on life was infective. I asked for his history and this is what he told me.

"As a worker I was dissatisfied with my comrades' and my lot in industry. I was fired with a zeal to improve it, and communism seemed to me an ideology that would help me to gain my purpose. I successfully organized and led a class war but I did not seem to get anywhere near my aim. I attributed my failures to the employer's cussedness. If only he would change and do the right

thing, everything would be well.

"But when I came in contact with M. R. A. ideology, I realized that my failures were due to myself, and that I must change first if I am to succeed in changing my opponent. I was failing because I was not putting my comrades interests before mine, I was more for proving myself right and my opponent wrong. I was not serving my comrades. I was only glorifying myself. I now try to find out what is right and not who is right."

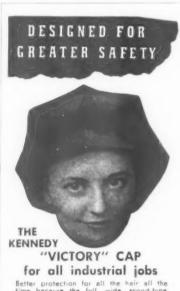
The whole of his talk appealed to me as the essence of Mahatma Gandhi's sermons on "Service before Self" put into actual practice in the industrial sphere.

"And how do you find out what is right?" I asked.

"I pray and ask for guidance," he said with a serene smile.

"And do you get it each time?"

"Yes, if I am ready to see and do things in the light of moral precepts like truth, unselfishness, love, and so on, and faithfully



Better protection for all the hair all the time because the full, wide, snood-type back of the Kennedy "Victory" Cap permits complete coverage. Easy to put on. Adjustable to all head sizes. If styles to choose from.

Manufacturers and distributors of a complete line of safety clothing and equipment.

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follow the guidance I may get, even if it goes against me,"

Again my memory went back to Mahatma Gandhi's eternal search for truth and divine guidance. Now-a-days 1 try not to project my frustrations on to my food or my subordinates. I seek relief, and also strength, through prayer.

If some of my friends at the managerial level ever read this they very likely will exclaim with glee, "We told you so. The poor old doc is suffering from softening of the brain."

Joe and the Drunk

From page 33

ber here. Call it and ask for Alec. Tell him I told you to call, and that you want to talk to him about a guy in trouble. He'll know what you want, and he'll work with you—and he'll do a lot more good than you or I or a dozen other well-meaning mugs like us."

"I don't get it." said Joe.

I explained, "Six years ago Alec drank himself out of the office of this plant. Five years ago the cops picked him out of a gutter in Chicago's Skid Row. He had the DT's before he got out of the hospital that time had 'em bad. But he also met some guys during that stay in the hospital, guys who came visiting guys who had squared themselves up after they'd sunk as low as Alec had. Called themselves Alcoholics Anonymous. They're all ex-boozers, and they work with other alcoholics. If a guy will admit he needs help, they can get him on his feet.

"I'm not telling you Alec's last name. Maybe he will. But if I told you, you'd know the business he's in, and you'd know that this ex-Skid-Row bum is a pretty big wheel in this community. He made it, through the help of the Alcoholies Anonymous, and part of the program of that organization is that alcoholies help themselves by helping other alcoholies. If your guy will just admit to himself that he can't lick the booze alone, but needs help, Alec and his crowd will do a lot for him."

"I thought you said this was a Chicago bunch," Joe said.

"No, the AA is just about everywhere. There's Alec here, and at

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NO METAL—Only pure cotton and cotton-covered elastic. No rusting, chafing, no discomfort. So inexpensive, they can be used and thrown away...
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Here's the answer to perspiration... supersoft, super-absorbent E-X-P-A-N-D-E-D COTTON SWEATBANDS. Real comfort for those hot-spot jobs... a better band at a lower price.

Perfectly designed. No metal parts to rust or chafe, cotton-covered elastic holds band firmly but you can't even feel it. Get E-X-P-A-N-D-E-D COTTON SWEATBANDS from your regular dealer in safety or first aid supplies. Write us for free sample today.

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Makers of GAUZTEX—The bandage that sticks to itself

least a dozen others in our town. They've salvaged a lot of good guys who were further gone than I think your man is,"

Joe looked doubtful, "I dunno. Sounds like interferin' with a guy's private life. I don't know nothin' about this Alcoholics Nonymous, Is it a bunch of religious fanatics or prohibitionists, or somethin'?"

"Tell you what, Joe. Ask your padre, Father Ryan, about AA. And ask my minister, Mr. Black. I know they both send people to Alec, and they'll tell you the AA program works. As for interfering, baby, you can thank your stars I interfered with you five years ago." Monday, May 4, 1953

Joe stopped in first thing this morning. He looked a little dazed.

He blurted out, "Look, mister, maybe I'm dumb, but this thing's pretty deep stuff for me. I went back and talked to that trucker. an' he's not a dumb guy, not any, But he wouldn't level with me. Said he just met some friends at noon that day he showed up tight. and had a few too many, and he wouldn't do it again. I scouted around a little with the guy, and he has some pretty smart ideas. I got talkin', and he showed me a hunch on routing and storing stuff that'll save some man-hours. So I was feelin' pretty good, and I figured your boozer outfit angle wasn't so important.

"Then, I'm a son of a gun if I don't run into the guy on Saturday night comin' out of Mike's weaving and stinko. So I coralled him in my car, and I called up your friend Alec. So he told me to bring the guy out to his house—and say, brother, you didn't tell me who Alec was! Why he's—"

"He's Alec," I said, and "don't get any other ideas. To you and me, he's Alec, and we forget the rest."

"Okay." said Joe. "Anyhow. Alec did the prettiest job of sobering up a guy I ever saw, and put him to bed. Then, Sunday afterpoon, Alec calls me up, and I went out to his place again, and the three of us had a talk—yeah, and the guy's wife was there, too, and Alec's wife. And there was Alec, with his nice house an' his country club membership, telling this drunk of mine about the lousy flop houses he'd slept in, and his wife

tellin' my guy's wife about bailin' Alec out of small town hoosegows.

"Anyhow, Alec finally turns to my man and says, 'Look, Mac, Joe must be a pretty square boss. You've given him a rough time, a bad time. He coulda kicked you right off the job and kept you off. Instead he's brought you to me, and he's ready to help.

"'The drinking's not his business. Mac. but your work is, and he's showed he's interested in you as a guy. He says you're smart. and he wants your help on some planning. But he can't have you drunk in the plant-and like I've told you, Mac, you're like all alcoholics, you're like me-all your life you'll be just one drink away from a drunk. The booze, that's your problem, and the AA problem, my problem. I think you can handle it, if you'll follow the AA program. But you've had all the breaks you can expect to get from Joe. Don't expect any more'."

Joe thought a little more, than said, measuring his words with a most unusual carefulness for him,

"You know, maybe I've got myself a good man there. If the AA stuff worked for Alec, and this playing on special abilities like you did with me works, too, maybe this guy'll be all right."

"Maybe." I said, feeling old, like an elder statesman seeing the young firebrands growing up into grey-haired conservatives.

Safety Library

From page 56

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Fire Safety Recommendations for Nursing Homes. Published by National Fire Protection Association, 60 Batterymarch St., Boston, Mass. 1953. 4p. Free.

Fire Service Ladders. Ace Instruction Guide in the Care and Handling of All Types. By Roi B. Woolley. Published by Case-Shepperd-Maux Publishing Co., 24 West 40th St., New York 18, 1953, 103p. \$2,00.

The Florida Nursing Home Fire, Published by National Fire Protection Association, 60 Batterymarch St., Boston, Mass, 1953. 6p. 35c. (Reprint NFPA Quarterly, April 1953).

Mines

Some Factors Affecting and Suggested Ways for Improving Coal Mine Ventilation with Particular Reference to Mines in Illinois, Indiana and Western Kentucky. Published by U. S. Bureau of Mines. 1953. 15p. Available from The Bureau, Publications Distribution Section, 4800 Forbes St., Pittsburgh 13, Pa. Free. (Information Circular 7656).

Radiation

Maximum Permissible Amounts of Radioisotopes in the Human Body and Maximum Permissible Concentrations in Air and Water, Published by National Bureau of Standards, 1953, 45p. For sale by the Superintendent of Documents, Washington 25, D. C. 20c, (Handbook 52).

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The Phenomenon of Accident Proneness. By A. G. Anhous and J. E. Kerrich, Industrial Medicine and Surgery, April, 1953, p.141.

Accident Statistics

Manufacturing Paces, 1952 Injury Reduction. Safety Standards. April-May, 1953. p. 1.

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Problem Drinking and Industry. By S. Charles Francs, Edison Electric Institute Bulletin. April, 1953. p. 109. Industrial Medicine and Surgery. April, 1953. p. 175.

Chemical Industry

Safety Is Your Business. By Joseph Guelich. Chemical Engineering. May, 1953. p. 211.

Construction

Protecting Road Crew from Traffic. Better Roads, April, 1953. p. 25.

West Virginia Advances Safety in Building Construction. By Charles Sattler. Safety Standards. April-May, 1953. p. 3.

Fire Protection

Fire Curtain Increases Effectiveness of CO₂ Systems. By H. P. Sleeper, Electric Light and Power.



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a Big difference between Asbestos Gloves and you can tell the dif-ference when you get Industrial's No. 200-14 asbestos gloves. The quality stands out in your hands and on your hands. Seamless one piece construction from tip to top. No seams at the wrist or working edges to pull out or burn out just when protection is needed most on a hot Made lined or unlined. Standard lining is an 8 ounce knitted cotton material anchored in each finger and thumb. Knitted wool or industrial wool lining on request. The quality stands out in the correct design and proportions of the big roomy pattern that allow a cool, comfortable fit. Double sewn throughout. Standard 11, 14 and 23 inch lengths. Other lengths and many special types of asbestos gloves and mittens are available both plain and leather reinforced. The quality of all these items stands out because they are all made of sturdy, close woven 21/2 pound per square yard Underwriters grade Asbestos cloth.

Be safe—use Industrial's Safety Apparel backed by more than 40 years of experience and know-how that means dependable low cost protection for rough, tough service.

We are designers and manufacturers of a complete line of Industrial Safety Apparel. Write for catalog and tell us your requirements.

INDUSTRIAL GLOVES COMPANY

A CORPORATION

Main Factory: 1700 Garffeld St., DANVILLE, ILL. (In Canada: SAFETY SUPPLY CO., Teronto)





Safety condition your plant with "SAFETY-WALK"

Here's the new mineral-coated fabric that provides perfect traction—sure footing—even under water or grease! And it's easy to apply, easy to keep clean. Use "SAFETY-WALK" Non-

slip Surfacing also on stairways, ramps, walkways—wherever the danger of a fall is present. It pays off in accident prevention, better employee relations ... stops costly production delay.

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Safety-Walk

WETORDRY NON-SLIP

Made in U.S.A. by Minnesota Mining & Mfg. Co. St. Paul 6, Minn.

Also makers of "Scotch" Brand Pressure-Sensitive Tapes, "Scotch" Sound Recording Tape, "Underseal" Rubberized Coating, "Scotchlie" Reflective Sheeting, "3A" Abrasives, "3AM" Adhesives, General Export: 122 E. 42nd 5t, New York 17, N. Y. In Canada: London, Ont., Can.



April, 1953. p. 102.

Pre-Planning Proves a Factor in Controlling Cannery Fire. Fire Engineering. March, 1953. p. 198.

Your Plant, Too, Could Go Boom! By J. W. St. Andre. Factory Management and Maintenance. April, 1953. p. 142.

Floors

Floor Problems Governed Plant's Construction. Plant Engineering. April, 1953. p. 114.

Gas Industry

Size Is No Bar to Need for Safety. By William H. Adams. American Gas Association Monthly. April, 1953. p. 14.

Goggles

Fitted Glasses Protect More Than Eyes, American Machinist. April 13, 1953. p. 192.

Grinding Wheels

Ten Steps to Grinding Wheel Safety, Factory Management and Maintenance, April, 1953, p. 104.

Health

Exposure of Connecticut Tobacco Workers to Parathion. By R. A. Schaefer and G. H. Vance. AMA Archives of Industrial Hygiene and Occupational Medicine, March 1953. p. 193.

Industrial Dermatoses. By John Eric Dalton, Industrial Medicine and Surgery, April 1953, p. 167.

An Industrial Diagnostic and Preventive Medicine Program. By Dorothy I. Lansing. Industrial Medicine and Surgery. April 1953. p. 156.

Oh - - - My Achin' Back! By Fred P. Kiefer. Supervision. April 1953. p. 10.

Toxicological and Pharmacological Studies on Chlordane. By Anthony M. Ambrose and others. AMA Archives of Industrial Hygiene and Occupational Medicine. March 1953. p. 197.

Hospitals

Electrostatic Safety for Hospital Operating Rooms. By Robin Beach. Electrical Engineering. April, 1953. p. 329.

Iron and Steel Industry

Safe Practices in the Production of Ductile Iron. By Robert E.

Savage. American Foundryman. April, 1953. p. 145.

Mines

Coal Is Going Places in Safety. Mechanization, March 1953, p. 85.

Noise

Ear Protection in Industrial Noise Exposure, By D. E. Wheeler, Industrial Hygiene Quarterly, March 1953, p. 51.

Industrial Noise and Hearing Conservation Program. By Meyer S. Fox. Industrial Medicine and Surgery. April 1953. p. 161.

Safety Standards for Industrial Noise, By Stacy R. Guild, Industrial Hygiene Quarterly, March 1953, p. 59.

Physical Examinations

Periodic Health Examinations. By W. Leigh Cook, AMA Archives of Industrial Hygiene and Occupational Medicine, March 1953, p. 241,

Plastics

Effective Control of Lead Bust in the Manufacture of Vinyl Plastics. By Alexander E. Goss, Industrial Hygiene Quarterly. March 1953. p. 41.

Printing Industry

Safety at the World's Largest Printing Plant. Safety Standards, April-May, 1953. p. 6.

Safety Controls for Single and Three-Knife Cutters. By Richard Squires. Bookbinding and Book Production. February 1953, p. 44.

Radiation

Evaluation of Long-Term Radiation Exposures. By Duncan A. Holaday, AMA Archives of Industrial Hygiene and Occupational Medicine, March 1953, p. 211.

Maximum Permissible Dose from Ionizing Radiation. By Karl Z. Morgan. Industrial Hygiene Quarterly. March 1953. p. 15.

Shoe Shop Radiation Hazards. New York Industrial Bulletin. March 1953. p. 13.

Railroads

How The Santa Fe Is Reflectorizing Roadway Signs. Railway Age, April 20, 1953. p. 77.

Top Bidding for Safety, Modern Railroads, April 1953, p. 143,



WORK PLATFORMS and MOBILE MAINTENANCE TOWERS — easily erected to any size, in any shape and in any length with Ezebilt or Ladscaf Scaffolding.

SCAFFOLDING LAYOUTS for large buildings or rooms using fast-toerect, adaptable Ezebilt or Ladscaf Scaffolding. TOUGH JOBS—solved with Endlok pipe & clamp Scaffolding.

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Ew safety equipment for industry

Manufacturers are invited to send in announcements of new products, or improved special features. Only items which can be considered as "news" to our readers will be published.

Protective Headgear

A new departure in protective headgear is announced by Willson Products, Inc. Their new Super-Tough hat is molded in one piece of lightweight, moisture-proof plastic. It passes all required tests for impact-resistance, pierce-resistance and dielectric strength. It is also resistant to many industrial acids and caustics.

There are two styles of this hat. No. 1 has a "buffer" type vinyl headgear with genuine leather sweathand and an elastic chin strap. No. 2 has a lighter type vinvl headgear, also with genuine leather sweatband. Either style is attached to the hat



by six suspension points which are molded into the interior of the shell so that no rivets or lacing pierce the hat. The headgear can be changed quickly and the adjusting strap is marked for head sizes to make proper fitting.

Standard color is green, but red, yellow, brown and white are available also. Complete details are available by writing: Willson Products, Inc., Reading, Pa.

Dusting Concrete Floors

To aid control of dusting concrete floors, United Laboratories, Inc., announces the development of a product designed for this purpose.

Such dusting is the first sign of a surface disintegration and if allowed to continue, can result in serious and costly floor problems. The product, known as Transvar 266, may be applied by brush or mop. It is a thin liquid, light amber in color but does not after the appearance of the surface due to deep penetration of pores. No surface film is formed. It may be applied to newly laid concrete, old surfaces, or to wooden floors to check surface splintering. Details may be had by writing: United Laboratories, Inc., 16801 Euclid Ave., Cleveland 12. Ohio. Item No. 2

Doffer Truck Magnet

A new doffer truck magnet has been developed for picking up tramp iron as the truck moves around the textile mill. This new tube-type permanent magnet is attached to the underside of the doffer truck and permits collection of traveler rings and other iron and steel pieces as the truck passes.

These non-electric tube magnets pick up and hold all iron and steel pieces by



a strong magnetic sweeping action. The hanger brackets are spread slightly to remove the magnetic unit for cleaning. The magnetic tube is easily cleaned by wiping with a cloth and then put back on the brackets attached to the truck

The unit is made in five standard sizes and full information may be had by writing:

Eries Manufacturing Co., 1945 Grove Dr.,

Skin Protective Ointment

Silicote skin protective ointment incorporates the newly developed silicones which repel water and moisture and at the same time allows normal skin respiration. It may be used either before exposure to prevent irritation or to facilitate healing. Chemically the new silicones have a quartz-like skeleton, consisting of alternating silicone and oxygen atoms. The ointment is being found helpful for protection of the skin of outdoor workers. those exposed to water and other substances, plasterers, leather workers and many others.

Samples and full information may be had by writing:

Arnar-Stone Laboratories, Inc., 1316 Sherman Ave., Evanston, III.

Portable Extinguishers

A new line of portable carbon dioxide tire extinguishers, with a new and simplified faster-acting valve, is announced by American-LaFrance-Foamite Corp.

Five models of this design are available Nos. 21/2, 5, 10, 15 and 20, the model numbers denoting also the weight capacity of the respective units. The new extinguisher valve incorporated has a number of improvements over the valve it replaces, including: increased simplicity. disassembles for servicing without special tools; operates faster; easier leverage; removable siphon tubes; safety disc is sidemounted instead of on top for added protection against damage.



These units carry the inspection and approval label of Underwriters' and Factory Mutual Laboratories. Free literature is available from:

American-LaFrance-Foamite Corp., Elmira, N. Y. hem No. 5

Adjust-A-Truck

This is a device designed to raise or lower over-the-road carriers to dock heights. It is particularly suitable for firms which do not have adequate room on docks or in front of docks to install adjustable dock ramps. The unit is set into the pavement in front of the dock and by means of heavy duty electric hydraulic system, to adjust each vehicle to dock height. Its capacity is 10,000 lbs.

The deck of the Adjust-A-Truck has a surface of checkered plate carried on a framework of standard structural beams

New safety equipment for industry

Further information on these new products and equipment may be obtained by writing direct to the manufacturer or to National Safety News. Accompanying coupon is for your convenience.

and channels, welded throughout. Deck size: 9'x12' long available; standard, 10'x 12º long. The cylinder assembly consists of a single-acting type cylinder. Raising and lowering of the device is instantaneous. A wall-mounted, momentary contact, double push-button station has one button marked Raise" and the other marked "Lower. The unit is designed for 110-volt control circuit. For full information write:

Rowe Methods, Inc., 2534 Detroit Ave., Cleveland 13 O

Interlock for Freight Elevator Doors

Recently developed is a simple safety interlock that prevents operation of freight elevators until the shaftway doors or gates are closed. It prevents the opening of gates or doors when the elevator is away from the floor level, thus insuring safe operation. The interlock is easily adaptable to new installations and as a replacement for old interlocks on present doors.



The electric contacts in the device are enclosed in a Bakelite case to keep out moisture, dust and dirt and thus prevent shutdowns. It has been tested by the Underwriters' Laboratories and hears their label. The unit is constructed to be used with either a stationary or a retiring cam on the elevator. For details write:

Guilbert, Inc., 1105 Frankford Ave., Philadelphia 25, Pa.

Anti-Rust Paint

Paint Corp. of America announces the addition of three new colors to their anticust paint line. Formerly available only in black, clear and aluminum, these paints are now furnished in light gray, oxide red and chrome green

According to the manufacturer these paints can be easily applied by anyone. and are suitable for brush, spray, roller or dip application indoors or out. Write for Bulletin 1-7287,

Paint Corp. of America, Fidelity Bl.g., Cleveland 14, O.

Loading Platform

A completely automatic loading platform for handling loads between truck floor and loading dock has just been introduced.

The Load-O-Matic, as it is called, is started from the loading dock when the front wheels of the materials handling



truck touch a switch bar in the floor of the loading platform, actuating the smooth, hydraulic lifting mechanism. ramp automatically stops the device when the platform is in the same level plane as the truck floor and bridges the gap between, whether the truck floor is above or below the loading dock. The materialshandling truck then is run onto the motor truck floor and unloaded. For wore details write:

Field Engineering Co., 66 Foote Ave., Jamestown, N. Y.

Labelon Tape

It is easy to mark circuits right on the hoxes or panel hoards when the handy new plastic Labelon Write on it" tape



that sticks without moistening to any clean, smooth surface is used. All necessary information regarding the circuit, including its number or service, voltage, amperage, phase can be noted on a strip of the new tape and applied anywhere on the box or board. The tape strips off cleanly and can be applied and re-applied easily.

No pencil lead, ink or cravon is required. To find out more about this write: Labelon Tape Co., Inc., 450 Atlantic Ave., Rochester 9, N. Y.

Cement Sealer

White Onex Seal is a special formula for rescaling and finishing white Portland Cement, white marble and white terrazzo floors. It is recommended for white cement floors in factories, food plants, hospitals or wherever good illumination, sanitation and safety are important.

Because it is hard, permanent-type seal, long wear and easy polishing are among its advantages. It applies easily with lambswool applicator, without streaking. When buffed or burnished after drying, it has a high fustre and achieves slipresistant finish. For complete information or demonstration write:

Hillyard Chemical Co., St. Joseph, Mo.

Floor Machine

A new lightweight floor machine which matches the performance of a larger machine is a late development of Hild Floor Machine Co. It is the Model "K" equipped with to h.p. heavy duty vertical motor which requires no lubrication. The 121/2



inch brush spread and brush speed of 210 r.p.m. assure lively action for a hard finish on all waxed floors. Attachments are available to serub, wax, polish, buff, and and steel wool floors of any kind. It



Ew safety equipment for industry

Manufacturers are invited to send in announcements of new products, or improved special features. Only items which can be considered as "news" to our readers will be published.

weighs 34 lbs., or 38 lbs. with brush attached. A 30-foot non-marking grey rubber cord is furnished. Descriptive circular is available from:

Hild Floor Machine Co., 740 W. Washington Blvd., Chicago 6.

Bactericide Disinfectant

An exclusive development to help avoid costly mistakes is the prime feature of a new hactericide-disinfectant cleaner introduced by the Diversey Corp. Named Diversol CX, this product has a distinctive pink color for ready identification plus the same properties of the regular white Diversol which helps control bacteria, mold and yeast, guards against spoilage, deodorizes. It is fully soluble, stable, non-corrosive, has water softening and penetrating action, and will not stain equipment. It is packed in 325 lb, barrels and 125 and 25 lb, drums. Literature on this product is available from:

The Diversey Corp., 1820 Roscoe St., Chicago 13.

Lift Trucks

Two new fork lift trucks in capacities of 3,000 and 4,000 pounds have just been released by Hyster Co. They are Models YC-40 and UC-30, powered by heavyduty, water-cooled industrial engines and



mounted on cushion-type tires. Unusual features are their extreme compactness, durability and maneuverability.

The YC-40 has a capacity of 4,000 pounds at 24-inch load centers. It is 38 inches wide and 78½ inches overall length. The UC-30 is basically the same truck but with 600 pounds less counterweight and a capacity of 3,000 pounds at 24-inch load centers. Both trucks have a sharp turning radius of 75 inches and 30 inches of free lift on the standard 9-foot uprights. Manufacturer will send full details:

Hyster Co., 2902 N.E. Clackamas St., Portland 8, Ore. Item No. 14

Rubber Mat Cleaner

A cleaning compound, in powder form for cleaning rubber floor matting, is now available. Known as Amateo, it cleans rubber of all types and colors, as well as linoleum, terrazzo, vinyl, asphalt tile, enameled and painted surfaces and wooden foors. It is not caustic, is guaranteed not to discolor, crack or deteriorate rubber goods. It is available in twe-pound packages through national distribution. Write the manufacturer for nearest distributor: American Mat Corp., 2018 Adams St., Toledo, Ohio.

Insect Repellent

Mine Safety Appliances Co. has been named exclusive industrial distributor for 'Ticks-Off," an insect repellent used to repel and kill ticks, chiggers, mosquitoes, flies, fleas, ants, gnats and other insect disease carriers

Ticks-Off, which is described as a polymerized hydrogenated Rotenone stabilized in a vegetable oil base, is being offered in a special atomizer spray homb. Spraying shees, socks, trousers or sleeves or on skin at the neck protects the user for 6 to 10 hours. It is said to be safe on nacmal skin, inoffensive to nasal and bronchial passages, may be used in the vicinity of foods without hazard and will not stain or spot clothing or harm plastic articles, sunglass frames, goggles, etc. For full details write:

Mine Safety Appliances Co., Braddock, Thomas and Meade Sts., Pittsburgh 8, Pa.

Side Panel Exhaust Vent

Optional construction on several of the smaller cabinet type Torit dust collectors is the placing of the exhaust outlet in the left side-panel. Its purpose is to provide efficient recirculation of cleaned air where the most practical location for the dust collector is beneath a bench or work table. These side-exhaust units can also be used in many close quarter locations where the clearance over the unit hampers the use of the regular top-panel exhaust.

Most popular unit equipped with this left-panel outlet is Torit Collector No. 66, Standing only 33 inches high it fits easily under most work benches. Complete details on these and other dust collectors may be obtained by writing:

Torit Manufacturing Co., 291 Walnut St St. Paul 2, Minn.

Goggle-Wash Fountain

A goggle-wash fountain, designed to per-

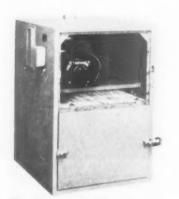


mit shop and laboratory workers to quickly and easily clean goggles, sifety glasses and plastic face shields is now available. The fountain, Haws Model No. 8985. has a nozzle that furnishes an arated spray directly down on the surface heing cleaned. It is operated by a foot treadle. For details to rite.

Haws Drinking Faucet Co., Berkeley 10, Calif.

First Aid Burn Kits

Davis first-aid burn kits now include an Aerosol automatic spray dispenser contain-





ing Americaine, a pain-killing burn treatment.

In addition to the spray dispenser, the

New safety equipment for industry

Further information on these new products and equipment may be obtained by writing direct to the manufacturer or to National Safety News. Accompanying coupon is for your convenience.

standard large kit contains Americaine in the form of a greaseless, water soluble ointment which is antiseptic, excludes air, and relieves pain. The dispenser applies a coat of Americaine to burned areas. In addition, the kits contain an assortment of bandages and compresses.

Literature on the kits is available on request to:

Davis Emergency Equipment Co., Inc., 45 Halleck St., Newark, N. J.

Floor Resurfacer

Recently introduced is a new heavy-duty floor resurfacing and patching material known as Redi-Roll formulated to meet the demand for a resurfacer that can be installed and used immediately without requiring time for curing or setting. Described as a plastic rather than mastic



material, Redi-Roll sets by compaction. Completely factory-prepared, the new product is ready for use as it comes from the container and may be applied over cement, brick, metal and most types of surfaces. Installation is said to be simple and easy: clean and prime the surface, rake Redi-Roll over the floor and roll down to a compacted thickness of 14 inch. Sprinkle surface powder over the new floor to avoid tackiness and traffic can roll over the new installation without delay. For complete details write:

Rock-Tred Corp., 7442 North St. Louis Ave., Skokie, III.

Safety Solvents

Three new solvents known as Orthosene, Per-Trolene and Frigisol for electrical, mechanical and metal parts degreasing and for refrigeration equipment cleaning are now available. Orthosene is a slow drying solvent, having high flash point and

degreasing quality without leaving residual oily film.

Per-Trolene is a rapid drying solvent having a flash point of 140°F which has wide application in electrical and mechanical maintenance shops where "dry" drying and exceptional degreasing qualities are essential.

Frigisol is also a rapid drying safety solvent, similar in many qualities to Per-Trolene but also capable of displacing water. It has an unusually high flash point, 235°F which makes it applicable to many spot locations where lower-flash solvents might present fire hazards. Frigisol is designed to clean and dehydrate refrigeration lines and is also suited for cleaning communications equipment.

The safety qualities of all three solvents have been improved by eliminating toxic inhibitors, as well as harmful isomers normal to some chlorinated products.

Technical data are available by writing: John B. Moore Corp., P.O. Box No. 3, Nutley 10, N. J.

Gloves for Hot Jobs

The Singer Glove Manufacturing Co. announces their Golden Heetmaster line of gloves for many hot jobs and for welding. As its name indicates, the glove is



golden yellow in color to reflect heat and also to identify it as a safety glove. Made of two layers of material, the outer layer of long-wearing terry cloth treated to make it flame resistant and the inner layer is of soft fleeced cotton. The glove is made in two types, a reversible glove which can be worn on either hand and the regular clute pattern. Write:

Singer Glove Manufacturing Co., 860 Weed St., Chicago 22.

Hand Truck

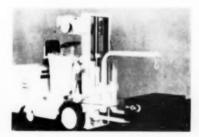
A new magnesium hand truck has been developed by Magnesium Co. of America which weighs 18 pounds but its capacity tops 500 pounds. All-bolted construction enables easy replacement of parts. The lightweight heavy-duty truck is suited for use on beverage and other delivery trucks and for general factory, warehousing and dock use. Write:

Magnesium Co. of America, East Chicago 19, Indiana.

Fork Truck

A multi-purpose fork truck designed for placing and removing dies from presses, and equipped with forks, a boom, and die-pulling equipment is a new develop-

The truck, originally engineered for a major automobile company, handles dies weighing more than 1500 pounds, adapters



weighing 650 pounds, trimmer dies weighing 400 pounds and die inserts weighing 50 pounds. The 4000 pound capacity truck has 42-inch forks and a 42-inch boom, the latter used when dies cannot be easily handled with the die-pulling device. The vehicle has dead-man control, hydraulic lift, worm and spur gear drive reduction, caster-type trail axle, four speeds forward and reverse and time acceleration. Additional information may be had by writing:

Elwell-Parker Electric Co., 4205 St. Clair Ave., Cleveland 3, Ohio.

Fire Retardant

Two new fire retardant coatings for wood and metal surfaces. Albi 99 and Albi PC have recently been subjected to severe tests at Underwriters' Laboratories and been given retardancy ratings.

These coatings, applied by brush or spray gun, produce a hard, durable finish



safety equipment for industry

Manufacturers are invited to send in announcements of new products, or improved special features. Only items which can be considered as "news" to our readers will be published.

in any of several colors. When exposed to flame, they form a cellular insulating "mat" that resists both heat and flame. The mat can be scraped off easily, revealing the undamaged surface ready for refinishing. Full details are available from:

Albi Manufacturing Co., Inc., 98 East Main St., Rockville, Conn.

Drum Handling

A horizontal drum handling attachment completely interchangeable among their entire line of fork trucks is now being manufactured by Clark Equipment Company. The attachment is semi-automatic quickly and easily adjusting itself to a variety of drum sizes for horizontal lifting



and tiering. It can handle drums ranging in over-all length from 26 to 38 inches. Within this range any width likely to be used can be handled. Drums can be handled either empty or full, singly or in pairs.

The attachment requires no tools for mounting or dismounting. It is suspended from standard truck forks which are inserted into the two channel-supports forming an integral part of the handler, Lifting and tilting of the oprights and truck movement are not affected by use of the drum handler. For literature write:

Clark Equipment Co., Industrial Truck Div., Battle Creek, Mich.

Item No. 26

Sweeper

Plantman sweepers are now available with left and right hand side brush attachments. This increases the sweeping



width by 12 inches and makes possible sweeping the angle of wall and floor in either direction. Now a 20-inch sweeper can be equipped with two side brush attachments to provide a 32-inch sweeping path and a speed of 20,000 square feet per hour. For illustrated brochure write: Handling Devices Co., Inc., Room 468, 43-45 Peerl St., Brookline 46, Mass.

Flame-Proofed Gloves

The manufacturer of Jomae industrial work gloves announces the addition of a new flame-proofed line of gloves manufactured from a heavy bright red cloth to permit identification. This enables supervisory personnel to spot immediately that the proper glove is being used. They are now available in gloves and mitts, either lined or unlined, for temperatures ranging up to 800°. Write for information and

complete catalog to:

C. Walker Jones Co., 6135 N. Lambert St., Philadelphia 38.

Germicidal Soap

A germicidal soap in liquid form which can be diluted with one or two parts of water and placed in regular dispensers is announced by Vestal, Inc. It is also suitable for use with shower facilities. This soap is also available in powdered form.

The liquid soap, known as Vestal SDC, is a solution of vegetable oil containing hexachlorophene in optimum concentration of 2 per cent anhydrous soap content. The powdered form is also compounded with 2 per cent hexachlorophene.

This chemical, according to recent medical studies, is an unusually effective antiseptic in combination with soap. It is reported to be useful in controlling the various staphylococi, which are involved in many skin infections and are resistant to ordinary soaps.

Uses recommended by the manufacturer are for decreasing incidence and severity of pyogenic skin infections, reducing infections in small cuts and lesions, and reducing fungous infections of the feet and other communicable diseases in shower rooms.

Another form of the product, containing the same antiseptic chemical, is employed for surgery and general hospital use.

For information write: Vestal, Inc., Dept. SDC, 493 Manchester Ave., St. Louis 10, Ma.

trom No. 20

News Items

Announcement of the change of corporate name of The Lithox Corp. of Wapakoneta, to The D. W. Moor Rubber Corp. has just been made by D. W. Moor, president and general manager. Other officers include H. E. Sheets, secretarytreasurer and T. K. Zuber, vice-president. The company manufactures corded rubber floor matting and stair treads.

NATIONAL SAFETY NEWS										JUI	NE,	1953
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Trade publications

in the safety field

These trade publications will help you to keep up-to-the-minute on new products and developments in industrial health and safety equipment. They are free and will be sent by manufacturers without obligation to readers of NATIONAL SAFETY NEWS who are responsible for this work. Send in the coupon below checked for the publications you desire. Please make your requests promptly.



- Hand Trucks: Bulletin describes and illustrates hand trucks for home and industrial use, also features compressed gas cylinder trucks. Construction features, dimensions and sizes included. Automatic Bending Co.
- Alsteel Freight Elevator Doors: Catalog G2-2 describes Alsteel bi-parting, telescoping and single section freight doors for use on elevators throughout industry, also dumbwaiter doors used on hatch entrances. Included are layout data, specifications, hoistway construction requirements and cut-away diagrams. Guilbert, Inc.
- 3. Industrial Sound Control: Literature describes a complete "Silence Service" which includes the design, engineering, and installation of sound control equipment. Industrial Sound Control, Inc.
- Materials Handling Equipment: Catalog covers a complete line of materials handling trucks constructed entirely of aluminum. Other light weight materials handling equipment include A-frames, tote hoxes, work tables and stock racks. Tobey Manufacturing Corp.
- "Floor Facts": Booklet contains architects and engineers specifications for the original treatment and maintenance of asphalt and rubber tile floors, linoleum, cork, terrazzo, wood, concrete, marble and ceramic floors. Floor machines and floor maintenance accessories featured also. Vestal, Inc.
- "Poisonous Plants at a Glance": Folder describes and illustrates how to tell poisonous plants at a glance. Allso gives information on how to treat the effects of poison oak and poison ivy. E. D. Bullard Company.
- Waterless Washstations: Literature describes how to increase production time and improve industrial health with waterless washstation units for hand washing on the job. Sugar Beet Products Co.
- 8. Welding Torches and Cutting Equip-

- menf: 28-page catalog illustrates a complete line of torches, both standard and Weldimatic, for acetylene, oxygen and liqnid petroleum gas, plumber's furnaces, weed burning torches, heating torches, tips, burns, and other welding equipment.
- Trophies for Champions: To stimulate recreational activities in industry, catalog illustrates trophies for top performance. Features are trophies, medals, tie slides, pendant pins, etc. House of Williams.
- 10. Shoveloader: Two-color literature describes the construction and industrial uses of the shoveloader. Literature illustrates applications and attachments for the front end loaders, lists specifications of the equipment and describes performance characteristics. Baker-Lull Manufacturing Co.
- 11. "Tuffy Braided Wire Fabric Sling Handbook: New handbook gives factual data on 22 sling types and on various types of sling fittings. Thirty illustrations of sling uses, step by step illustrated instructions on splicing both tuffy slings and wire rope. Union Wire Rope Corp.
- 12. "Riegel Work Glove Catalog: Illustrated are white canton flannel gloves, reversible gloves, hot mill gloves, split leather palm gloves, drivers gloves, busking gloves and mittens, etc. Riegel Textile Corp.
- 13. Safety Shields: Pamphlet describes transparent plastic standard pipe flange shields, for manifolds, fittings, valves, also valve bonnet shields for shielding of valve packing gland and bonnet flange. Packing Engineering Corp.
- 14. Fire Guards: Folder describes fire extinguishers for every type of fire. Tables giving types, capacity, composition and classifications listed. General Detroit Corp.
- 15. Ultra-Aire Space Filter: Bulletin 1505-1 describes and illustrates a filter for air purification. Two primary helds of useproduct and process control, and health

- protection are listed, including protection against inert and radio active dusts, in film manufacturing and processing; protection during processing foods, textiles, pharmaceuticals, hospitals, atomic energy plants, etc. Mine Safety Appliances Co.
- 16. The Logistics of Bags": Booklet designed to effect the greatest economics in handling load units in plants, warehouses, etc. Photos show various methods of handling by fork and platform truck, and many specialized attachments designed to increase handling versatility. Such operations as unloading, stacking within a building, and shipping detailed. Elwell-Parker Electric Co.
- "Herc-Alloy Sling Chain": Data book 3 describes a line of heat treated steel alloy sling chain assemblies. Specifications include load limits, dimensions and structural data. Columbus McKinnon Chain Corp.
- 18. Fire Extinguishing Equipment: File No. 816 contains a variety of helpful printed material on fire extinguishing. Included is latest catalog which describes Ansul extinguishers of all sizes from the small Model 4 to piped systems and 2000 lb. stationary units. Ansul Chemical Co.
- Washroom and Cafeteria Equipment: Literature on electric hand, hair and industrial dryers. Also information and specifications on sectional tables for cafeteria, work bench or recreation. Chicago Hardware Foundry Co.
- 20. "Color Dynamics": Illustrated booklet gives a complete analysis of the service color dynamics can perform in the plant. Explains how to put color to work on machines, walls, floors, ceilings and mobile units. Pittsburgh Plate Glass Co.
- 21. Floor Maintenance Machines: Complete information on polishing-scrubbing machines, a dry-scrubber, with self-sharpening brushes, mop trucks, vacuum cleaners for wet and dry pick-ups, and other accessories for floor care. Finnell System, Inc.

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